JANUARY, 1960

THE Lumberman

LUMBER PLYWOOD BOARD WOOD MANUFACTURING

Robert M. Ingram, left, retiring president of the world's largest lumber manufacturers association, hands the world's largest hardwood mallet to Thomas J. McHugh, as he takes over as president. Symbolically, these two industry leaders, during the recent NLMA subscribers meeting, visualized the need for spending $12.5 million for promotion of lumber.

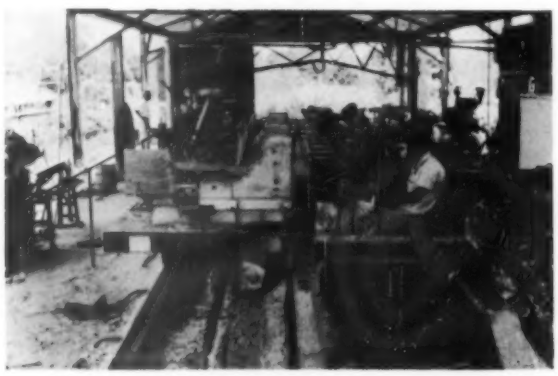
CORINTH AMERICAN
MODERN SAWMILL MACHINERY

Introducing

A NEW CONCEPT IN SAWMILL EFFICIENCY FOR GREATER PROFITS IN THE YEARS AHEAD

Corinth CONTROLLED POWER

WITH EQUIPMENT THROUGHOUT furnished by Corinth Machinery Company, the A. P. DeMange Lumber Company mill at Charleston, Mississippi is among the most modern ground level operations in this part of the South. Built around CORINTH-AMERICAN'S No. 838 Remote Controlled Air Carriage, this mill features CORINTH-AMERICAN "Set-A-Matic" Remote Controlled Setworks, Hydraulic Log Turner with Stop-and-Loader, Live Rolls, CORINTH-AMERICAN Edger with Self-Tailing Device, Steel Husk with Automatic Off-Bearer, and a CORINTH-AMERICAN Two-Saw Trimmer.



It will pay you to investigate CORINTH'S "Controlled Power", and see how our modern, engineered sawmill equipment can reduce your manpower costs . . . **increase your production and profits.** CORINTH-AMERICAN offers you the very finest in "Controlled Power" equipment, including Air Carriages with Air Cushioned Tapers, Air Tong Dogs, "Set-A-Matic" Remote Controlled Setworks, Steel Sawmill Husks with Automatic Off-Bearer, and Edger Tailing Device. Let CORINTH put "Controlled Power" to work for you today.

Write for new folder, "How Corinth's Controlled Power Can Increase Your Sawmill Profits"

CORINTH MACHINERY COMPANY
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Corinth, Mississippi

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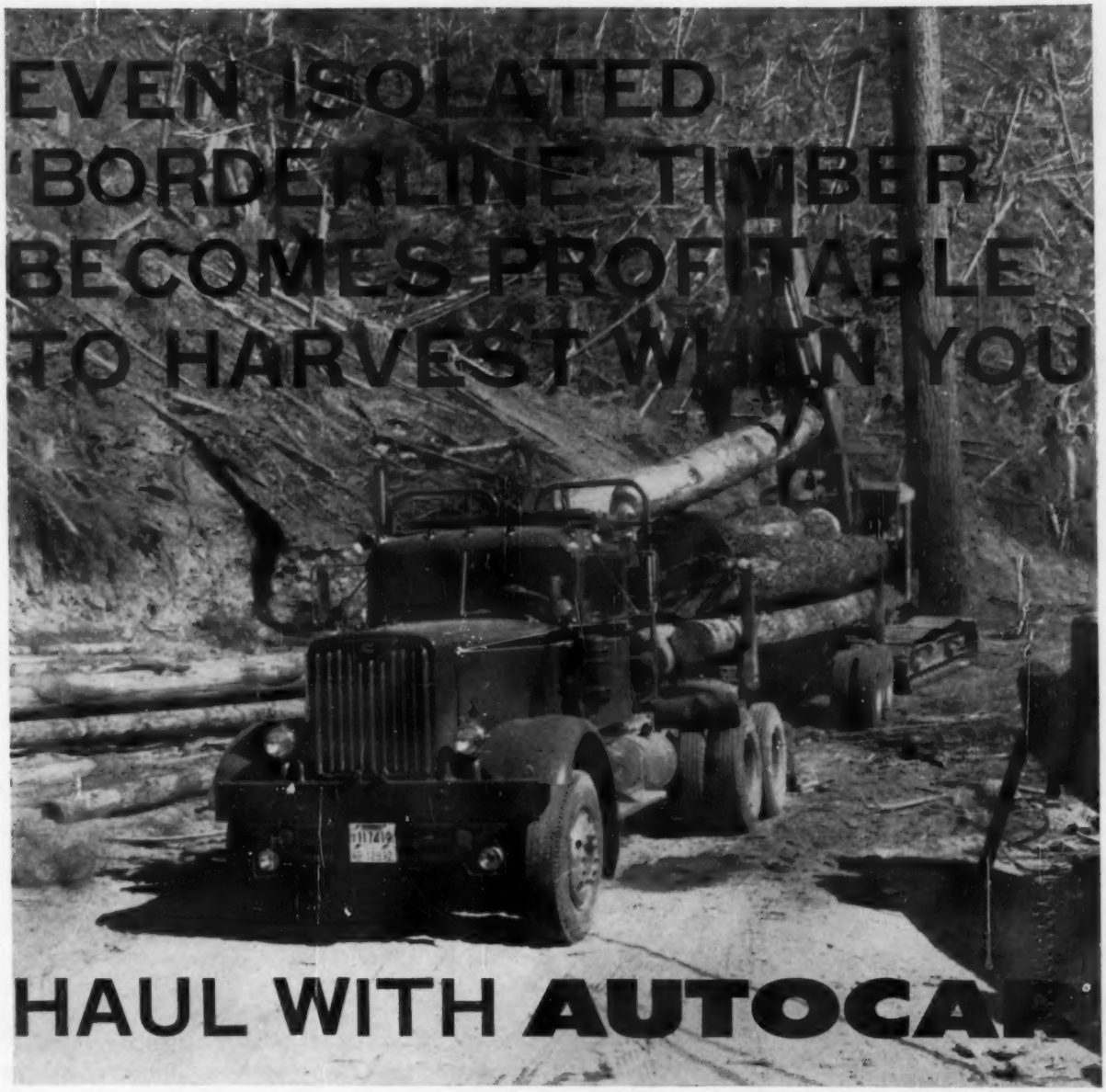


...*the forest industry's proved cost-saving diesel!*

Autocar logging trucks provide low-cost transportation and more profit to the forest industries! That's what they are designed to do.

Over rugged spur roads, mainline roads and modern highways alike, Autocar diesels operate at peak efficiency, consistently hauling maximum loads safely under all weather conditions.

Powered with the finest diesel engines available, these rugged motor trucks are built for strength and long life, using the most efficient combination of components engineered. At major points of wear, you'll find inexpensive replacement parts. Yes, with Autocar, low maintenance is a matter of record.

And loggers who operate Autocars are discovering still another benefit. Many "Borderline" timbered areas, previously considered uneconomical to harvest using ordinary transportation, can be profitably cut, opening up new sources of profit.

Ask your Autocar representative! He can show you how you can put this precision motor truck to work now to reduce your transportation costs! Call him today.

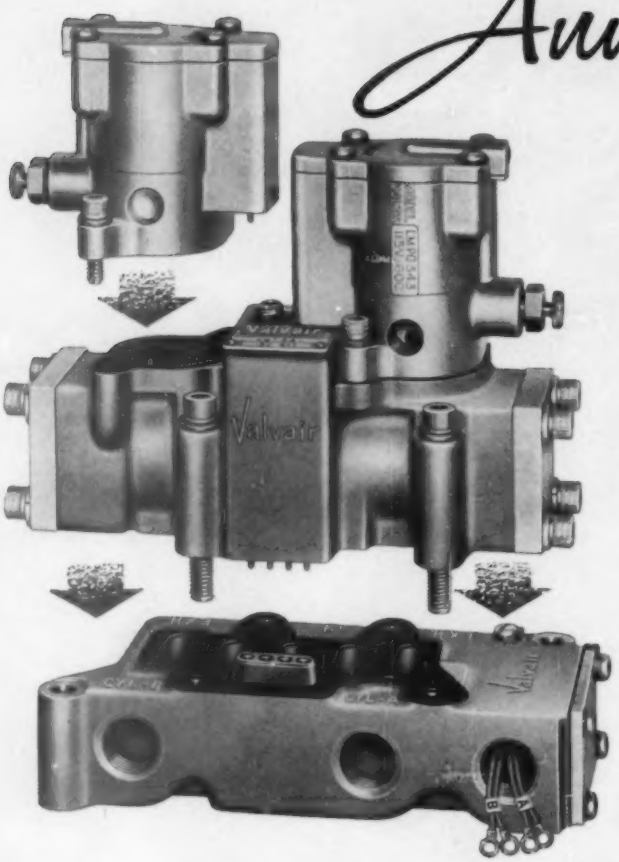
When you get down to factual comparisons your logical choice is . . .

Autocar
"World's Finest"

Division of
White Motor Company
Exton, Pa.

Announcing

VALVAIR® ½" NPT PLUG-IN VALVES



MODEL PD-441 shown. 4-way single or double pilot-operated types, for sub-base or manifold mounting. Aluminum and stainless steel components assure multi-million cycle dependability. Interchangeable pilots, with coils guaranteed against burn-out for life of valve, fit any plug-in Speed King. Coils for ac or dc, any voltage . . . 35 — 200 psi range . . . integral junction box . . . optional manual over-ride, common or separate exhaust ports, sub-base connected external pilot supply . . . ¾ in. exhaust ports, ½ or ¾ in. inlet and cylinder ports . . . valve meets JIC standards.

Based on the service-proved design principle of the Speed King ¼ in. plug-in Valvair's ½ - ¾ in. plug-in valve series provides plug-in convenience and versatility to a wider range of control valve applications.

Electrical and pneumatic circuits are completed automatically when valve and pilot are plugged in . . . bolted down. The result — cost-cutting reduction of original installation and maintenance time. All power connections are made permanently in sub-base or manifold . . . there's no need to disturb piping or wiring for quick in-service maintenance.

What's more, advanced design shortens stroke . . . speeds response. Separate coded (4-wire) circuits on double solenoid models meet JIC requirements. Flow area through valve and sub-base equals that of full ½ in. pipe.

Whether your control valve applications are on the drawing board or now in service, it'll pay you to investigate the advantages of Valvair plug-in design. A call to your near-by Valvair field office will bring prompt application engineering recommendations.

For more information, write for Bulletin SPL. Address Dept. LU-160, Valvair Corporation, 454 Morgan Ave., Akron 11, Ohio

Valvair AKRON 11, OHIO

Other INDUSTRIAL DIVISIONS of IBEC: The Sinclair-Collins Valve Co. The Bellows Co., Akron, Ohio • V. D. Anderson Co., Cleveland, Ohio.

8098

WHY NORTHWEST LOG LOADERS make it EASIER!

They make it EASIER to handle the loads!

The smooth velvet action of Northwest Uniform Pressure Swing Clutches eliminates the jerks and grabs that make spotting and loading the big ones difficult. Northwest Independent High Speed Boom Hoists are power controlled in both directions and operate independently of all other machine functions, without sacrificing either main drum. Their rugged design assures trouble-free service in day-after-day operation.

They make operation EASIER!

The "Feather-Touch" Clutch Control gives you the true feel of the load and greater accuracy of control—no pipe, no pumps, compressors or other delicate mechanisms. It's unaffected by temperature and control failure can't shut you down.

They make upkeep EASIER!

Northwest simplicity of design and general get-at-ability make lubrication and general upkeep easier. All High Speed Shafts are mounted on ball or roller bearings. The drive from the engine is through Helical Cut Gears mounted on anti-friction bearings and running in oil.

They make relocation EASIER!

Northwests take you there and get you back. Positive Traction while turning as well as when going straight ahead takes the larger Northwests where other equipment of equal size has difficulty. Travel gears are fully enclosed and run in oil. Alternate tread lugs and freedom from gaps between tread shoes give a self-cleaning action and eliminate the picking up of slash.

It's a rugged rig, proved in forest service. You owe it to yourself to find out all about the size Northwest you need.

For Those Light Heavy Loads!

The Northwest 25-D, 18-ton Lifting Crane

Ask about this newest Northwest in the ¾-yd. bracket—Longer, wider crawlers—Greater cable capacity—True power load lowering—Northwest High Speed Worm Boom Hoist, and many other advantages.

NORTHWEST **25-D** ¾ cu. yd. Capacity Log Loader

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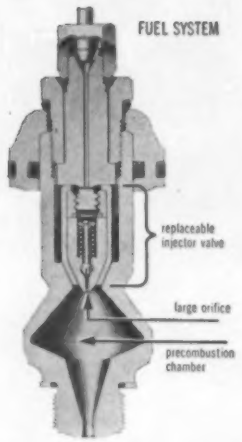
engine power BY CATERPILLAR

THINGS TO CONSIDER WHEN SELECTING DIESEL POWER FOR SAWMILLS AND LOGGING EQUIPMENT



Caterpillar Engines are economical to operate and maintain. Reason: an efficient fuel injection system.

Cat Engines have a large, single orifice injector tip, not a multi-holed injector. You can use a variety of low-cost fuels and still get foul-free operation at all times.

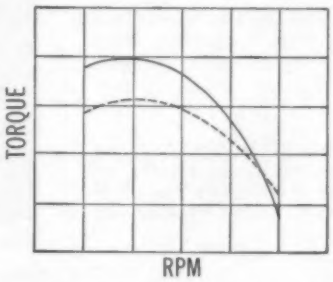
Instead of direct fuel injection, a precombustion chamber gives smooth operation, even at idle speeds. When the load suddenly increases there is no stalling or faltering.

You don't have to be an expert to keep the fuel injection system of a Cat Engine in top working condition. The entire fuel injector valve can be changed in five minutes. There are no adjustments to make and the total cost is less than $10.

Cat Engine torque rise (lugging ability) gives you top sawmill performance

For example, extra tough cuts cause load increase and a reduction in speed. When this happens, Cat Engines quickly overcome the load increase . . . instead of stalling. Extra fuel is injected into the cylinders. The exclusive fuel and air induction system of a Cat Diesel, plus its torque spring arrangement, allow the engine to take maximum advantage of this extra fuel. The result: added lugging ability when you need it most.

Cat Engines on sawmills offer sustained saw speed—log feed at a steady pace. The payoff to you—quality cuts with less strain on equipment. Note torque rise graph below:



The solid line indicates the lugging (torque rise) capabilities of a Cat Engine rated at 265 HP at 2000 RPM. The dotted line indicates the lugging capabilities of a competitive automotive-type diesel engine rated at 272 HP at 2000 RPM.

DEALER SERVICE

Caterpillar will provide power engineered to meet your needs

Your Caterpillar Dealer Engine Specialist is the man to size up your job, recommend the right engine, supervise installation. Whether it's prime power for a sawmill or repowering for logging equipment, this factory-trained expert offers you his knowledge and wide experience. He's backed by a staff of skilled servicemen. Your Caterpillar Engine is never far from quick and competent service. More than 400 outlets in the United States supply quality Caterpillar parts you can trust.

It will pay to call your Caterpillar Dealer soon.

The booklet, "More Board Feet . . . Less Cost," is yours free. Write to: Engine Division, Caterpillar Tractor Co., Peoria, Illinois, U. S. A.

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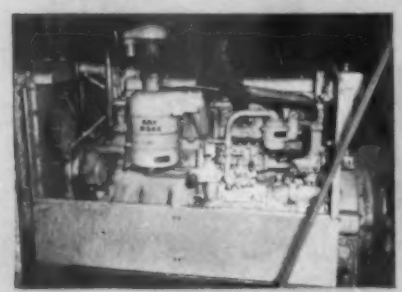

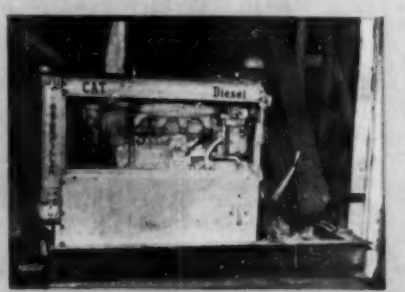

Here are a few ways that Cat modern, heavy-duty engines pay off in a sawmill. A D342 (left) powers a 60" saw mandrel with a Frick #3 hydraulic carriage feed, a friction log turner, a tower edger, and two dust chains. A D315 (right) powers a lineshaft to a Frick end trimmer, a green chain, a slab conveyor, a dust blower, and two water pumps.

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JANUARY, 1960

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THE Lumberman

LUMBER PLYWOOD BOARD WOOD MANUFACTURING

Lumber by the Yard is a benefit of end and edge gluing at Edward Hines Lumber Co., Hines, Ore. This manufacturer secures maximum value recovery from the lumber and the end user keeps waste to a minimum. 34

Leasing of Equipment: Here are answers to your questions as presented by Robert Sheridan 37

Automated Mill of Springle Lumber Co., Gainesville, Ga., produces lumber for $3 per M. Key unit is 28-inch gang. 38

Wood Promotion Budget upped by National Wood Promotion Committee to expand 1960 activities in advertising, merchandising, product publicity and promotion. 40

Chemical Treatment can pay big dividends for the lumber industry through protection against stain and end-checking. 42

Studs and Crossarms operation at Riverside Lumber Co., Piercy, Calif., capitalizes on adjustable device on edger. 46

Plywood Production Doubled as high speed sander is made key piece of equipment at International Paper Company's Weed, Calif., plant in expansion program that reduces costs per M square feet. 60

Automatic Log Deck, controlled by photo-electric cells, is a prime feature of the green end at Drain Plywood Co., Drain, Ore. 62

If You're Considering Particle Board, check these factors: Raw material—proximity and cost; Product—chipboard or flakeboard; Capacity—at least 5 million square feet a year. 64

Conveyor System installed by Certain-Teed Products Corp., Savannah, Ga., speeds up chip handling. Material can be moved to plant, to storage—or can be recirculated. 72

DEPARTMENTS

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significant industry news

General Outlook . . .

CEDAR FIGHTS BACK . . . Cedar Digest, quarterly house organ of Western Red Cedar Lumber Association, takes off on aluminum in its most recent issue. The publication features large photographs of "aluminum siding (applied to a midwester home) as it appeared following a heavy hail storm". The metal siding is literally pockmarked with thousands of small dents. Other color photographs show chalking and erosion of TV-touted "baked-on enamel finish" and sprung butt joints which, the Digest points out "is the sort of thing that caused the Model T to rattle". A total of 140,000 copies of the publication has been sent to lumber dealers, builders, architects and others in the construction industry.

USE WOOD . . . United States Plywood Corp.'s new particle board plant in South Boston, Va., will be constructed of wood in every vital particular. Gene Brewer, president of U. S. Plywood, says the new facility will be a "standing display of products which are of significance to the wood industry". Beams and posts will be laminated wood structures, the roof will be fir plywood and walls will be pine plywood. The office section will have a roof of pre-stressed vaulted plywood panels and Texture One-Eleven siding of stained redwood. Weldwood prefinished wall paneling will be used on the interior.

JOBBERS LOOK AT COMPONENTS . . . Millwork jobbers are in an excellent position to render a new service to the industry via the furnishing of house components, a panel at the annual meeting of the Northern Sash & Door Jobbers in White Sulphur Springs, W. Va., reported. If the jobbers fail to follow up this service opportunity, some other new type of component distribution specialists can be expected to come into existence, the panel advised. The association is currently conducting an extensive research program on the fabrication, warehousing, sale and distribution of components.

MOULDING IMPORT BATTLE . . . Serious problems are posed for jobbers and manufacturers by imported mouldings, Enoch Israelson of Dorris Lumber & Moulding Co., Sacramento, Calif., told delegates to the annual fall meeting of the Southern Sash & Door Jobbers Association at Houston, Tex. Despite Congress' failure last July to place a 17% ad valorem on imported moulding, Israelson promised that the Western Pine Association will continue to oppose imported mouldings, particularly the practically free entry. Southwest Pine Association has also joined the fight. (See Significant News, THE LUMBERMAN, December.)

AUSTRALIA TO UP NORTH AMERICAN BUYING . . . Easing of import quotas for the December-March period is expected to increase Australia's lumber buying in the North American market by at least 25%. Much of the purchasing is expected to be in B. C. If the trend continues for the year it could mean $20 million in business. Improvement in the money exchange and trading position made it possible for Australia to raise its quota on lumber imports by 15% last spring and there has been a gradual relaxation since then.

OREGON PLANTS SOLD . . . Hub City Plywood Corp. and its associate firm, Three Sisters Plywood Corp., both Albany, Ore., have been purchased by Seagrave Corp., Columbus, O., manufacturer of fire apparatus. Elton Disher, president and one of the founders of Hub City, will continue to head the operation of the two plants and becomes a member of the board of directors of Seagrave.

More INDUSTRY NEWS on Page 16

Belted out 2,200,000 cords–lasted twice as long

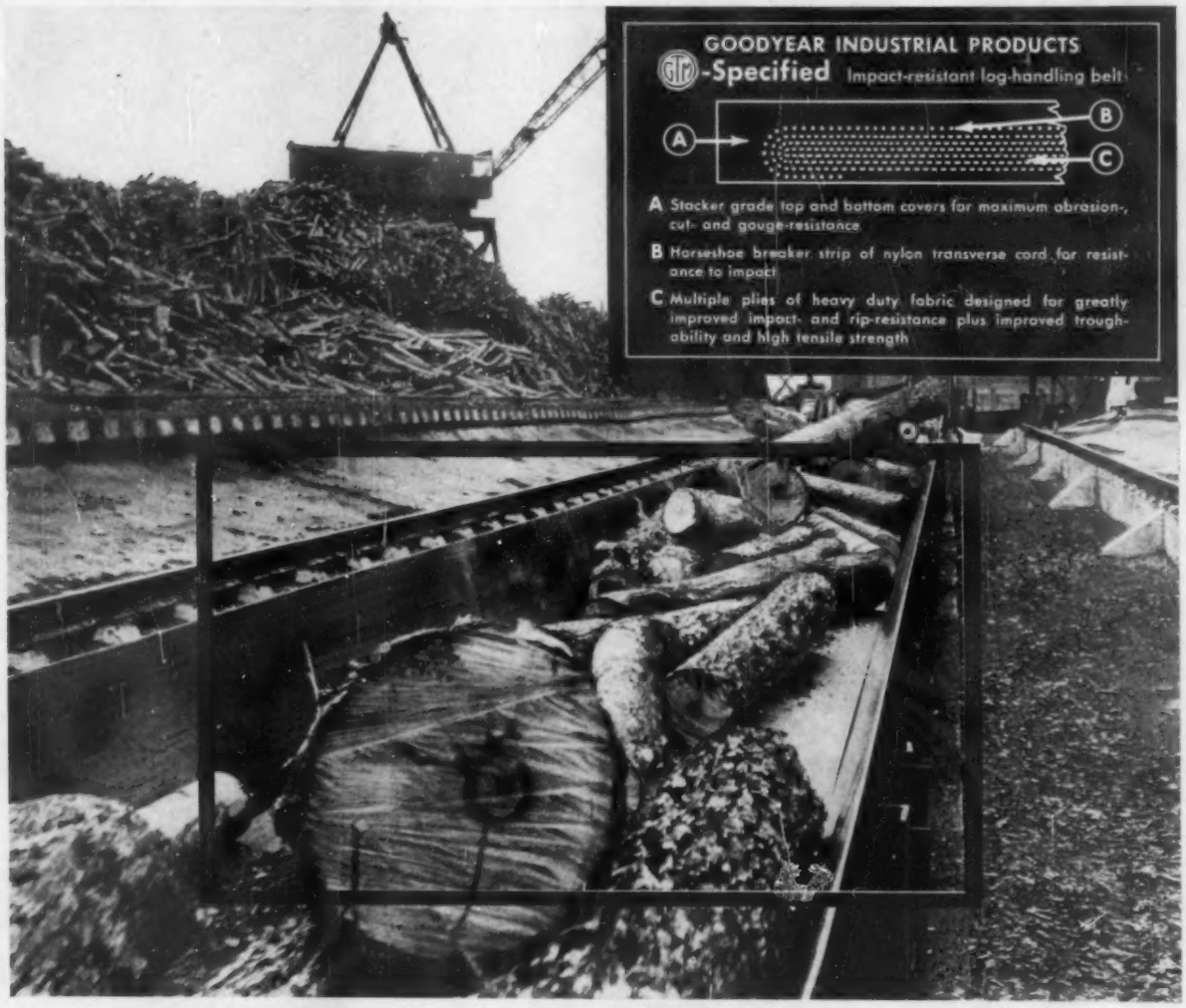
"Unbarked logs will chew any rubber belting to pieces," the scoffers claimed. But that didn't stop this big East Coast paper mill from replacing chain conveyors with a complete rubber system more than ten years ago.

The G.T.M.–Goodyear Technical Man–had pointed out that one rubber belt with 700-foot centers could do the work of two to three shorter chain-type conveyors. And a rubber belting system would take substantially less power–even at greatly stepped-up belt-speed.

But the real pay-off: in the 10 years since original installation, the G.T.M.'s belts have proved *twice* as long-lasting as the former chain conveyor. Maintenance has been cut. And even in a rare case or two of accidental damage, belts have proved easier, quicker and less expensive to repair.

Here, then, is still another case where the G.T.M.'s recommendation–and the right industrial rubber–meant never-before-achieved efficiency and savings. For expert advice on materials handling problems, contact the G.T.M. through your Goodyear Distributor–or by writing Goodyear, Industrial Products Division, Akron 16, Ohio.

IT'S SMART TO DO BUSINESS *with your Goodyear Distributor. He can give you fast, dependable service on Hose, V-Belts, Flat Belts and many other industrial rubber and nonrubber supplies. Look for him in the Yellow Pages under "Rubber Goods" or "Rubber Products."*


GOODYEAR INDUSTRIAL PRODUCTS
GTM-Specified Impact-resistant log-handling belt
A
B
C
A Stacker grade top and bottom covers for maximum abrasion-, cut- and gouge-resistance
B Horseshoe breaker strip of nylon transverse cord for resistance to impact
C Multiple plies of heavy duty fabric designed for greatly improved impact- and rip-resistance plus improved troughability and high tensile strength

CONVEYOR BELTS BY

GOODYEAR

THE GREATEST NAME IN RUBBER

NOW—FROM REICHHOLD...

GLUE BY THE ROLL!

NEW WAY TO MAKE PLYWOOD WITHOUT GLUE ROOMS AND GLUE SPREADERS

PGL is the popular name for this new Reichhold product. That's short for "paper glue line." In effect, glue-by-the-roll, PGL consists of a cellulose carrier sheet impregnated with phenolic resin. You cut the sheet to size in the same way you do plastic overlay materials. Or you can use the continuous sheet as it is supplied for "automating" your plywood layup. In hot pressing, the resin remains on the glue line, where it's needed for maximum efficiency with minimum waste: eliminating uneven glue spreads, glue wipes, and bleed-through.

With PGL, panels can be pre-assembled, then pressed when convenient. PGL will tolerate higher moisture content veneers and hence help solve the age-old problem of blistering.

The potential of this modern glue-by-the-roll is tremendous. While film glues have been used sporadically for many years, Reichhold research has now come up with the basic improvements that were needed to make the product practical for standard plywood production. Reichhold PLYOPHEN PGL is faster curing, more economical.

Reichhold has successfully tested PLYOPHEN PGL in a wide variety of important bonding applications. If you would like detailed information on these applications, write to **Reichhold Chemicals, Inc., P.O. Box 3547, Seattle 24, Washington.**

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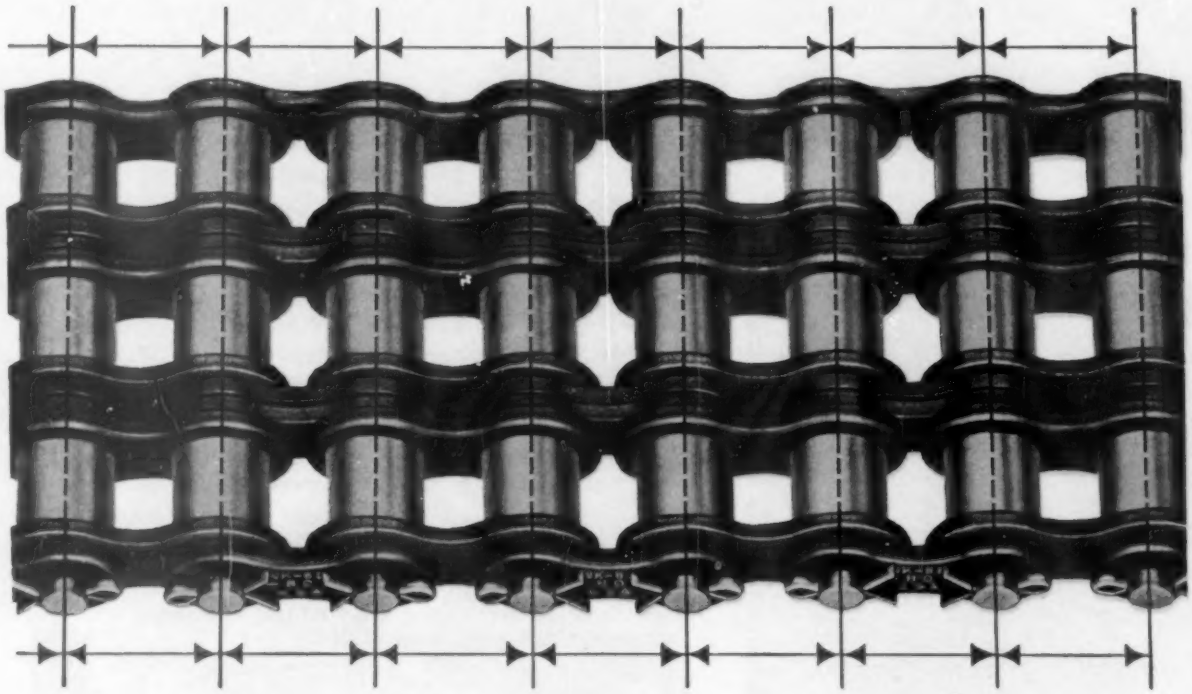


Equal length... equal strength

How pre-stressing ensures uniform load distribution of multiple-width LINK-BELT roller chain

Pre-stressing is one of the reasons why Link-Belt multiple-width precision steel roller chains easily handle the grueling loads common on today's drives. It seats and cold works the chain joint parts, assuring equal load distribution across the chain, minimum initial elongation, increased fatigue life.

Pre-stressing is just one of many "extras" that contribute to the *greater dynamic strength* of Link-Belt roller chain. Others include: close heat-treat control, lock-type bushings, shot-peened rollers, pitch-hole preparation. For details see Book 2657.

PRE-STRESSING MACHINE provides the pull that "sets" the parts of Link-Belt multiple-width roller chain. Besides assuring uniform load distribution, pre-stressing eliminates application difficulties on fixed center drives because the chain leaves the factory at precise operational length.

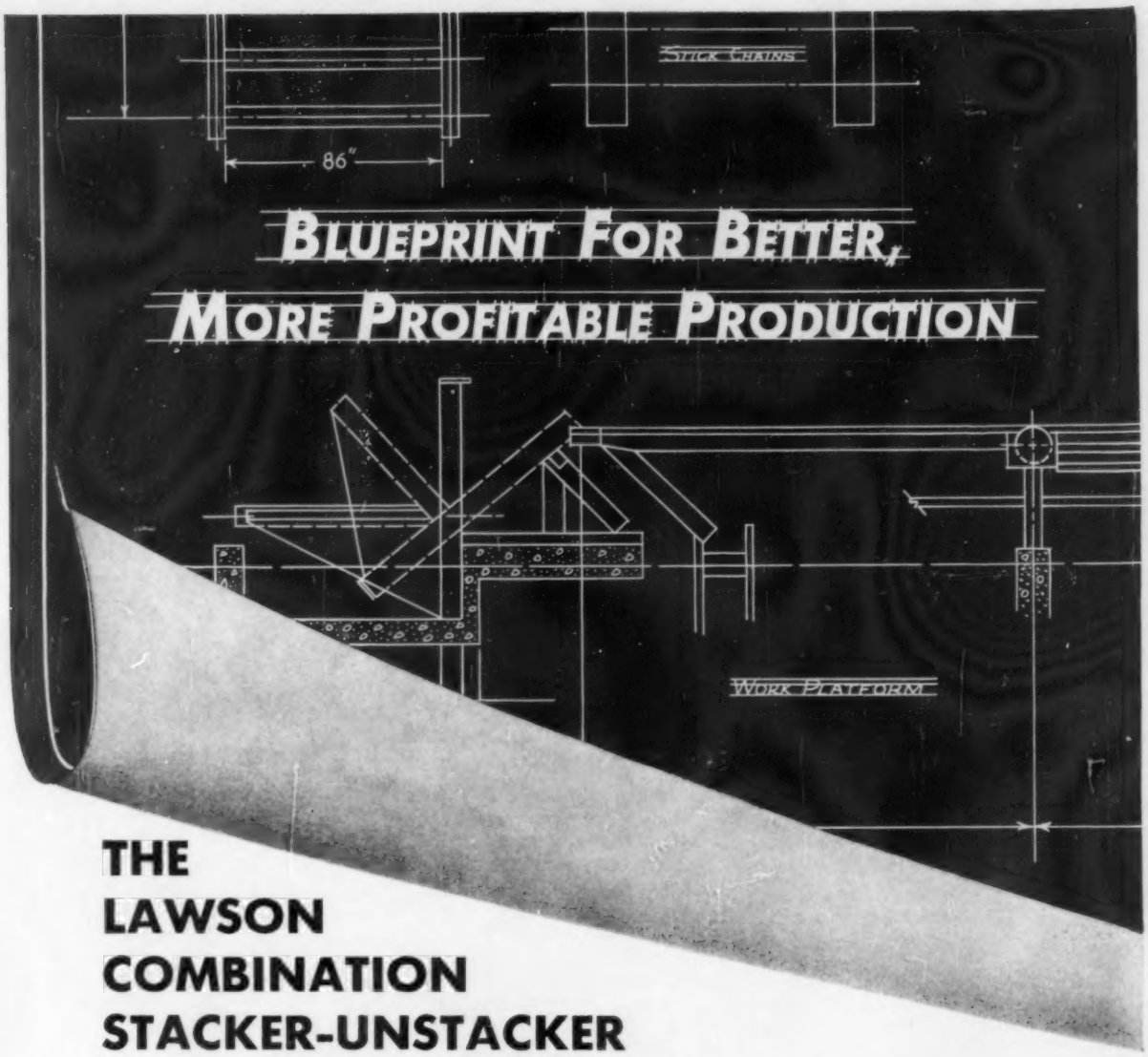
LINK-BELT

ROLLER CHAINS AND SPROCKETS

BOOK 2657 has 154 pages of roller chain data. Contact your nearest Link-Belt office or authorized stock-carrying distributor. (See CHAINS in the yellow pages of your phone book.)

15,077

LINK-BELT COMPANY: To Serve Industry There Are Link-Belt Plants, Sales Offices and Warehouses at San Francisco 24, Los Angeles 22 (Montebello), Seattle 4. Sales Offices and Warehouses at Portland 10, Spokane 10, Salt Lake City 1. Stock Carrying Distributors in Principal Areas.



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We have a model for any operation . . . from the smallest to the largest . . . a machine that makes it possible to handle up to 120,000 board feet *over* your previous record *with no increase in man power!*

Unbelievable? Convince yourself as hundreds of others have . . . call, wire or write today for full information, technical data, literature, or the services of a trained engineer. There's no obligation, of course.

THE LAWSON COMBINATION STACKER-UNSTACKER

is only one of the many machines, resulting from Lawson Creative Engineering, that will save you time, money and labor in all stages of lumber-handling, including

AUTOMATIC STICK-PLACERS • STACKERS • UNSTACKERS
AUTOMATIC LOADERS • AUTOMATIC COURSE-MAKERS
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FLAT BOARD SORTERS • ALL TYPES OF LUMBER CONVEYORS

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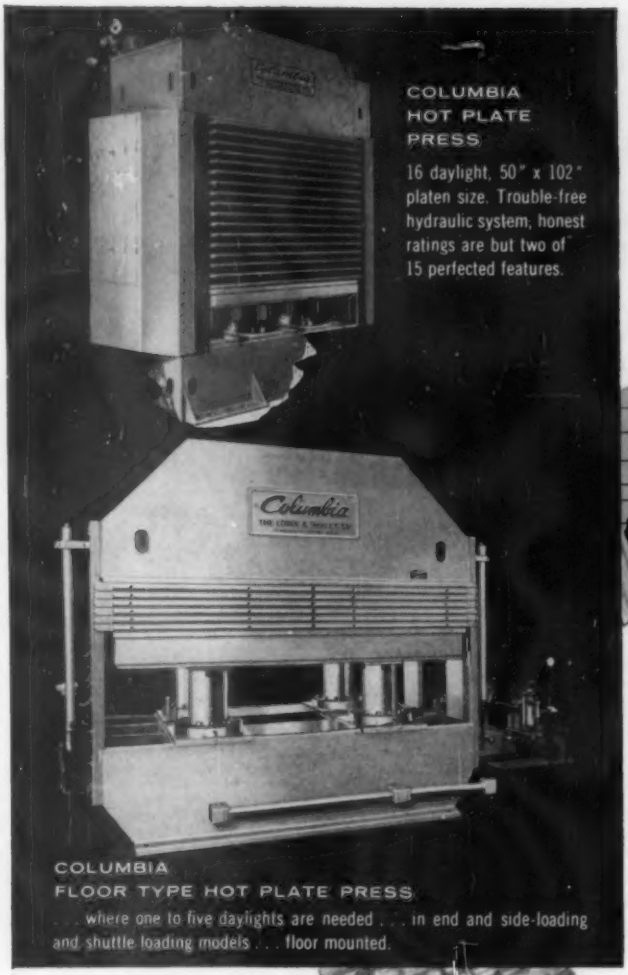
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HOT PLATE
PRESS
16 daylight, 50" x 102" platen size. Trouble-free hydraulic system, honest ratings are but two of 15 perfected features.
Columbia
COLUMBIA
FLOOR TYPE HOT PLATE PRESS
. . . where one to five daylights are needed . . . in end and side-loading and shuttle loading models . . . floor mounted.

MAKE GOOD PRODUCTS ...GOOD PROFITS, TOO!

Wherever you find plywood, veneer, hardboard and other laminated productions, there you will also find Columbia Hot Plate Presses . . . choice of manufacturers who want truly dependable performance.

Columbia Presses meet production requirements and give you a bonus in economical installation, operation and maintenance. For eye-opening details, request Bulletin HP-19.

Write: **The Lodge & Shipley Company, 3060 Colerain Avenue, Cincinnati 25, Ohio.**

TIME-PROVED
Columbia
HYDRAULIC PRESSES
INDUSTRY-APPROVED

Lodge & Shipley

. . . your LODGE-ical choice

Seven out of ten. Of the hundreds of straightline or glue joint rip saws in use today, the one you're most likely to see in any mass production plant is the Diehl No. 750 Rip Saw. In fact, fully 70 per cent of such plants have one or more No. 750's in operation. The reason for this overwhelming preference is simple: Woodworking men have learned from experience that the Diehl No. 750 has no equal for accuracy and durability in high-speed ripping. If you'd like to see for yourself what No. 750 can do, your Diehl representative will arrange a demonstration in a nearby plant.

Standard of Comparison in the Woodworking Industry

THE G. M. DIEHL MACHINE WORKS, INC., Wabash, Indiana

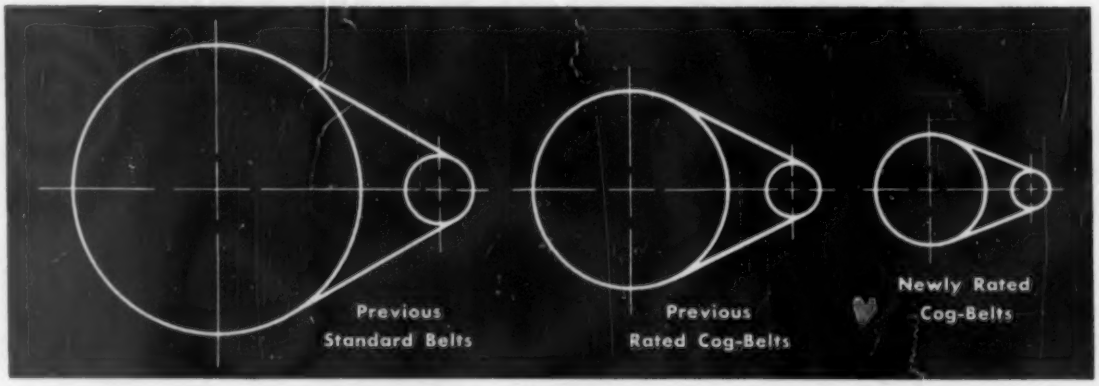
Frank E. Jones Machinery Corporation, Los Angeles 21, California;
Star Machinery Company, Seattle 4, Washington; Portland 10, Oregon; Spokane, Washington

Diehl

AN IMPORTANT ANNOUNCEMENT FROM HEADQUARTERS FOR **NEW** IDEAS

Now Dayton Cog-Belt® increased to 200%–300% of

Higher HP Dayton Cog-Belts offer today's biggest savings in Cost,



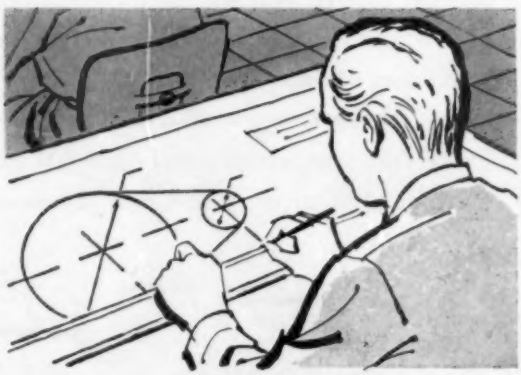
The Dayton Rubber Company proudly announces the findings of the most extensive, thorough analysis project in the V-Belt power transmission field, during which literally hundreds of thousands of V-Belt drives were evaluated by a renowned, independent engineering laboratory.

This long-term project was initiated because Dayton Cog-Belt performance had been noticeably upgraded over a period of years, through continued research and development in new materials and improved features . . . indicating that heretofore established HP ratings have become obsolete.

The result: Important new increases in Dayton Cog-Belt horsepower ratings . . . *now 2 to 3 times higher than previous standard V-Belt ratings.*

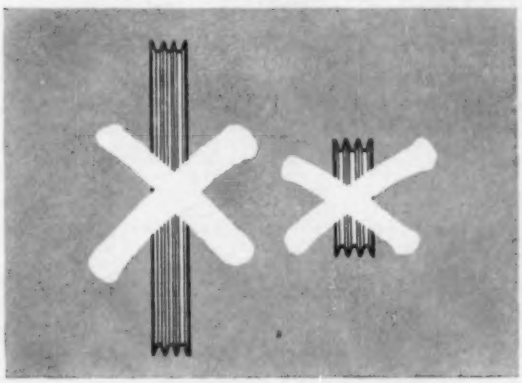
For the V-Belt drive designer . . . New Compactness, Lightness, Economy.

Dayton Cog-Belts, delivering 2 to 3 times more horsepower, permit drive designers to use narrower sheaves, less grooves, fewer belts for any V-Belt drive. *Two Cog-Belts do the work of 4 to 6 previous standard V-Belts.* Drive space thus saved permits new compactness of design, lighter weight and lower cost . . . job-proven on thousands of power drives throughout all industry. First costs and maintenance costs can be substantially reduced with Dayton Cog-Belt drives.



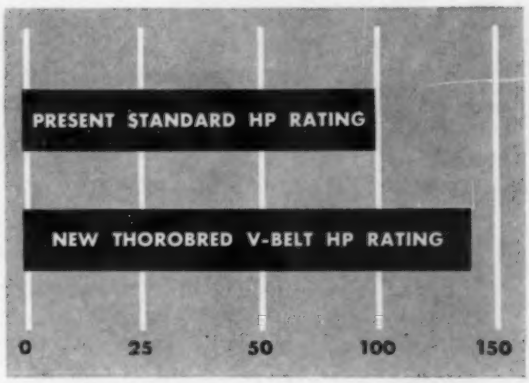
Horsepower Capacity previous Standard Belt Ratings

Drive Space, Weight . . . using *existing industry-standard sheaves.*



No special sheaves required... Existing sheave stocks usable.

Using long-accepted industry-standard sheaves, *Dayton Cog-Belts do not obsolete present stocks of sheaves* . . . drives can be assembled from any existing inventories. Newly-rated Dayton Cog-Belts permit use of sheaves with smaller diameters and comparably closer centers . . . always at a savings in cost and weight. Because Dayton Cog-Belts operate on industry-standard sheaves, there is no need to stock additional special sizes. Present inventory stocks allow you to cover a greater range of higher horsepower capacities.



HP Ratings on Dayton Thorobred V-Belts also substantially increased.

Dayton Thorobred V-Belts, through similarly evolved improvements in materials and research, are now also officially increased in horsepower capacity—40% more than previous standard ratings. Five Dayton Thorobreds now do the work of seven standard-rated V-Belts. Here again are important increases in power drive capabilities and cost reductions! With these new ratings, the Dayton Thorobred is unquestionably the leading performer of all standard-type industrial V-Belts.

Write for new brochure showing how designers can calculate Dayton Cog-Belt drives by referring to existing drive selection tables in Dayton's #280-B Handbook of V-Belt Drive Design. See "Belting" in the yellow pages of your telephone directory for the name of your nearest Dayton Distributor or write Dayton Industrial Products Company, Division of The Dayton Rubber Company, Dayton 1, Ohio.

Utilize over 30 years of time proven Dayton quality, research and engineering in your V-Belt drive design.

Dayton Industrial Products Co.

Melrose Park, Ill.

A Division of The Dayton Rubber Co.

GRADE MARKS FOR ALL FRAMING LUMBER . . . The FHA says all framing lumber used in housing built under FHA inspection will have to be grade-marked effective April 1. The grade marking will be done under the supervision of the manufacturers' association responsible for the grading standards for the species involved, or an independent inspection agency recognized by FHA and the American Lumber Standards Committee.

NEW NATIONAL FORESTS ADDED IN SOUTH . . . Three new national forests have been established by presidential proclamation—the Oconee in Georgia, the Tombigbee in Mississippi and the Tuskegee in Alabama. The new forests do not add to acreage in federal ownership. They are land utilization projects on once submarginal lands that have been administered by the U. S. Forest Service since their purchase under the Bankhead-Jones Farm Tenant Act.

U. S. PLYWOOD ADDS TO DISTRIBUTION . . . Exportable output of Santa Clara Lumber Co., Inc., Philippine plywood producer, will be marketed in the United States by U. S. Plywood Corp. Santa Clara operates plants at Manila, Davao City and Kabasalan. Output is Philippine lauan. U. S. Plywood has also contracted to handle output of Hult Lumber Co., Horton, Ore., and Bohemia Lumber Co., Culp Creek, Ore.

PRODUCTION, SALES UP . . . British Columbia Forest Products Ltd., Vancouver, B. C., says production and sales for the year ended September 30 were at an all-time high . . . were much better than expected. Sales totaled $44.9 million. Net profit was $3.2 million. Company performance would have been even better had it not been for the industry-wide strike last summer. Plywood output would have set a new record.

At the Plant Front . . .

TENNESSEE MILL SOLD . . . The Alex Bryant & Son band mill at Clarksville, Tenn., has been purchased by the newly established Whitson Timber Products Co. The purchasing firm was recently established by Whitson Lumber Co., Nashville, which operates a planing mill and kilns at Nashville.

OREGON FIRMS CONSOLIDATED . . . Jones Veneer & Plywood Co. is the new name of Harold R. Jones, Inc., Multi-Use Panel Corp., Lane Veneer Co., Valley Plywood, Lane Laminators and Wood Tex Corp., all plywood and veneer enterprises of Harold R. Jones in the Eugene, Ore., area. The firms specialize in Philippine mahogany panels.

WEYERHAEUSER EXPANDING AT LONGVIEW, WASH. . . . Work will be started immediately at Longview, Wash., to double capacity of Weyerhaeuser Co.'s plywood plant. The new facility is expected to be in production by mid-1960.

KENTUCKY PLYWOOD PLANT SOLD . . . Julius and Kenneth Bergsma of Grand Rapids, Mich., have purchased the Breece Plywood Co., New Albany, Ky. The Bergsma brothers also operate several other plywood plants.

PLY PLANT WORK DUE . . . Camac Veneer, Inc., has awarded the construction contract for its new plant in Eugene, Ore., and figures to get the plant in production in April or May. The new plant will be located on the site of the Campbell & McLean mill destroyed by fire in July. Recently established Camac Veneer is headed by George Campbell, president, and Leonard C. Nelson, vice-president and general manager.

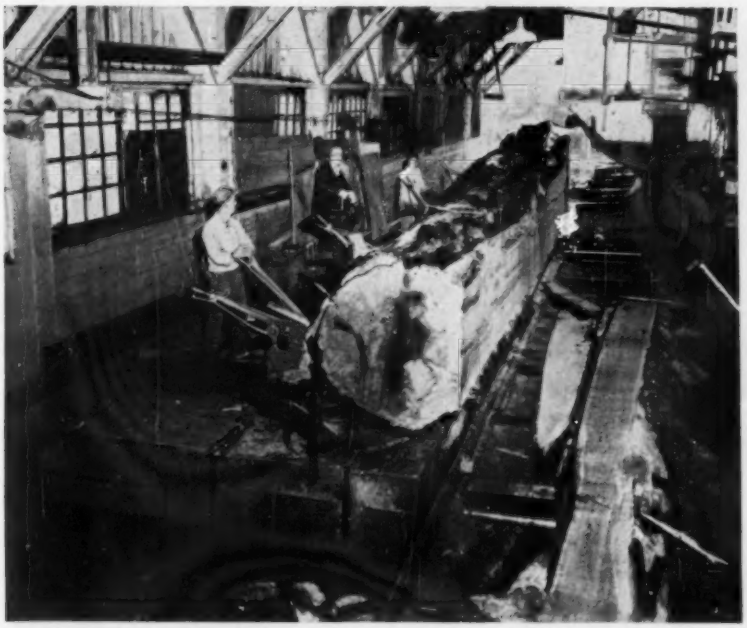
More INDUSTRY NEWS on Page 24

STANDARD ENGINEER'S FIELD REPORT

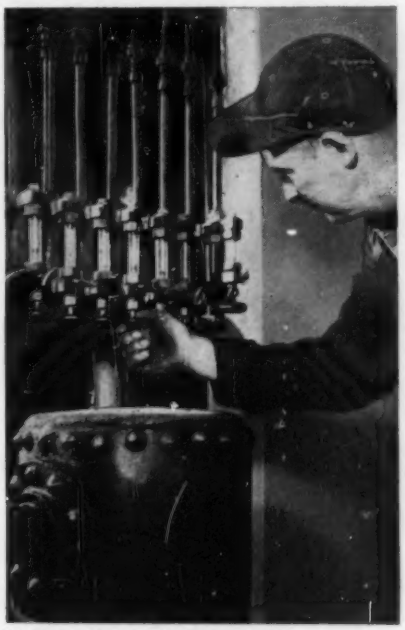
PRODUCT **Chevron Cylinder Oil**

FIRM **Walton Lumber Co. Everett, Washington**

Steam engines work 31 years without repairs



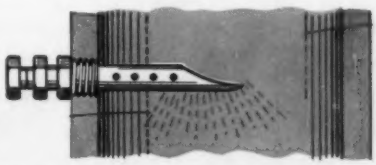
Chevron Cylinder Oil has lubricated all steam powered equipment at Walton Lumber Company since 1927. In all this time, firm has never repaired or replaced any lubricated part. Chevron Cylinder Oil helps sawyer get instant response from engine powering main log carriage (above).



Hydrostatic lubricator feeds oil to main steam engine and smaller locomotive-type compressors in all parts of mill. Lubricator holds 16 gallons of Chevron Cylinder Oil.

Mill Superintendent John Clem (left) and Chief Engineer Frank Bulus (right) report Chevron Cylinder Oil gives excellent service in all their steam equipment including this 15-inch by 20-inch twin Sumner engine which powers main log carriage. They started using Chevron Cylinder Oil when mill was rebuilt and have continued using it for over 31 years.

How Chevron Cylinder Oils cut lubrication costs



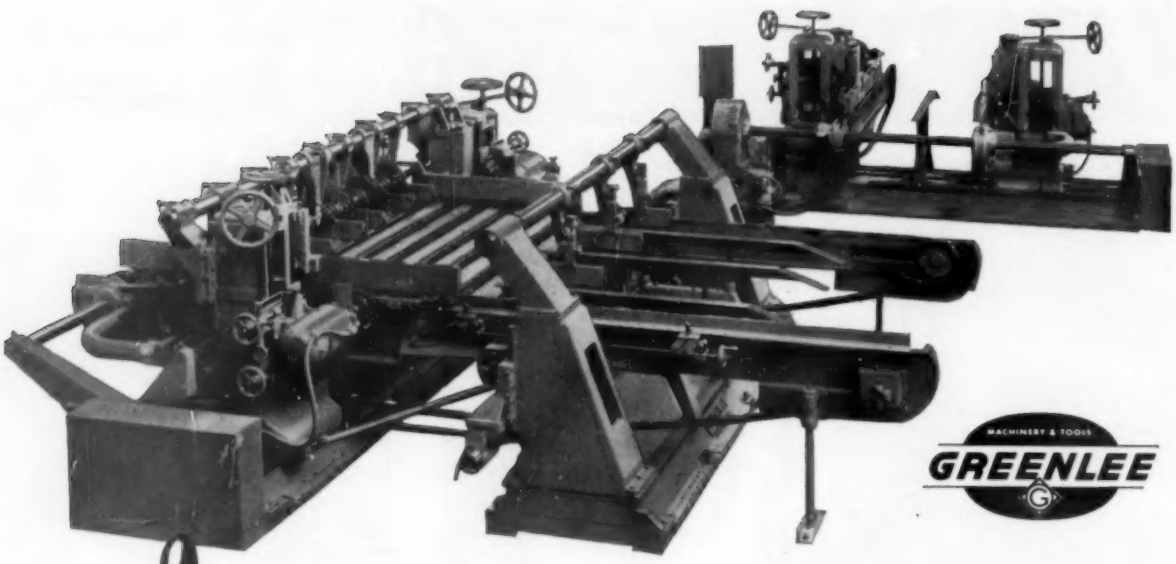
- Lubricate economically and efficiently with freedom from carbon in temperatures from 375°F. to 550°F.
- Atomize readily in steam and separates easily from exhaust steam and condensate.
- Various grades to meet mechanical requirements of installations.

For More Information on this or other petroleum products contact your Standard Engineer or Representative, or write Standard Oil Company of California, 225 Bush St., San Francisco 20, California.

CHEVRON Industrial Lubricants

TRADEMARK "CHEVRON" AND CHEVRON DESIGN REG. U.S. PAT. OFF.

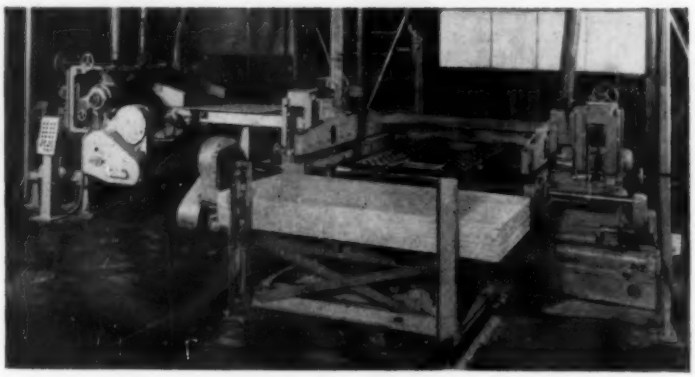
STANDARD OIL COMPANY OF CALIFORNIA



Improve production...lower costs with Greenlee Double-End Panel Machines

Special Panel Machines Size, Split, and Shiplap Insulation Board In One Pass. Edges are shiplapped on the Skinner. The second machine, with a slat-bed outfeed section, has a combination of front lower and rear top dado units that produce multiple strips with shiplap on all four edges.

Slat-Bed Multiple Cut-Up Saws Cut Flat and Curved Particle Board. Equipped with overhead dado cutting units these Slat-Bed Machines with automatic transfer cut both curved and flat particle board with minimum changeover. Feed rates to 110 feet per minute. Operation is fully automatic and accuracy is assured.

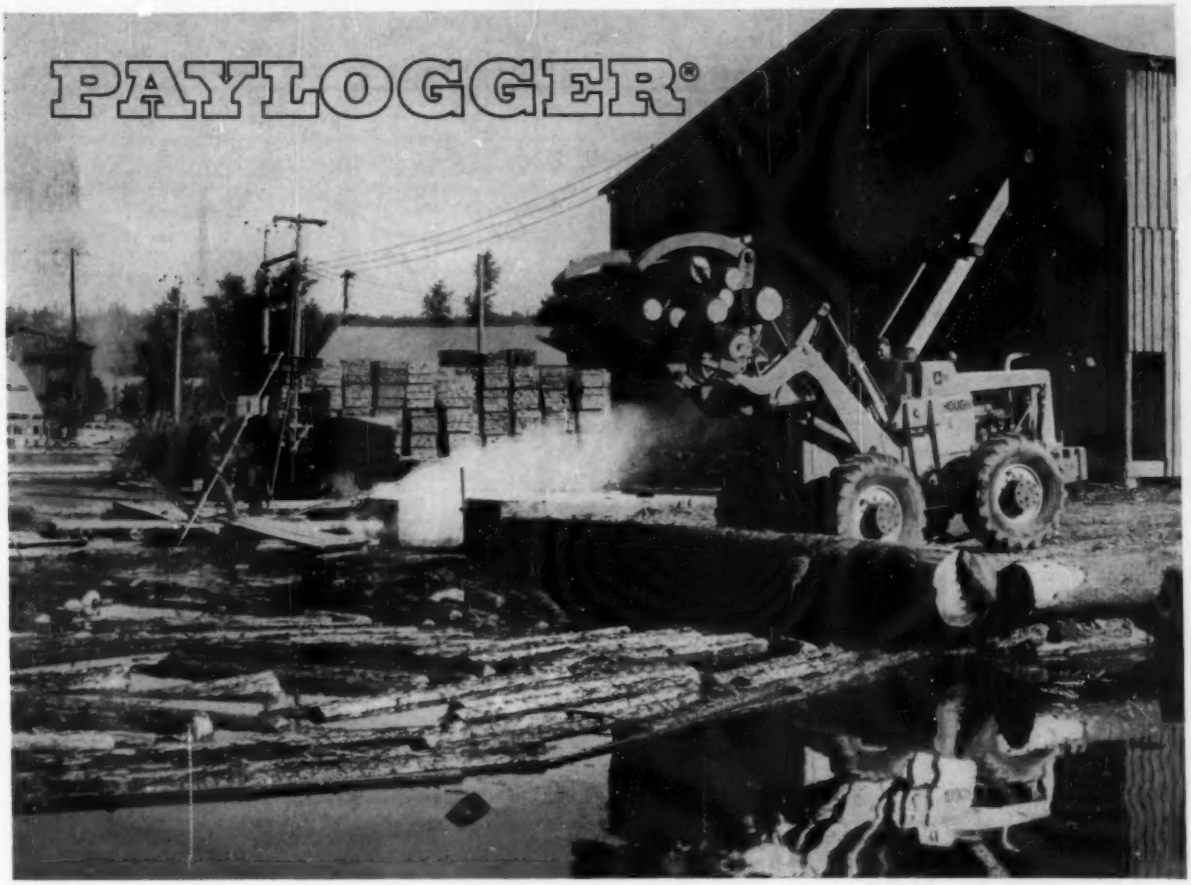


High Production Skinner and Cut-Off Saw Sizes Particle Board Panels. Equipped with horizontal hogging units, these machines are primarily used in high production panel sizing. The Skinner Saw has a cartridge type dado unit for panel splitting.

Many variations, in addition to those shown, can be arranged with or without automatic transfer units to meet your panel sizing, splitting, and grooving requirements. Discover how Greenlee Double-End Panel Machines can cut your costs!

GREENLEE BROS. & CO.
1723 Twenty-First Avenue, Rockford, Illinois

MORTISING, BORING AND ROUTING TOOLS by GREENLEE TOOL CO.



Fast, safe handling of logs and lumber

The "PAYLOGGER" line gives you the exclusive combination of genuine Drott hydraulic grapples on rubber tire mounting — 4-wheel-drive units with the same mobility and proven performance as the well-known "PAYLOADER" tractor-shovels.

"PAYLOGGER" sizes range up to 17,500 lbs. in Lifting Capacity — up to 13,000 lbs. in Operating Capacity. Drott grapples are available for all kinds of handling — big logs, small logs, pulpwood, lumber, and slash.

Built throughout for hard service, "PAYLOGGER" units feature powerful, reliable hydraulic systems of the closed, pressure-controlled type . . . better balance and stability due to low-and-close load-carry position. Power-transfer differentials, power-shift transmission, torque-converter drive, planetary axles, power-steer and 4-wheel power brakes are some of the important mechanical details that make "PAYLOGGER" units outstanding in tractive ability, ease of operation and dependability on any terrain.

Your Hough Distributor with his complete service and parts departments, backed up by factory service personnel is another "PAYLOGGER" advantage. See him today.

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SUBSIDIARY — INTERNATIONAL HARVESTER COMPANY

THE FRANK G. HOUGH CO.
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Send more information on "PAYLOGGER" tractors with DROTT patented grapples to handle: ☐ logs (.....lb. loads), ☐ lumber, ☐ pulpwood, other.....

Name.....

Title.....

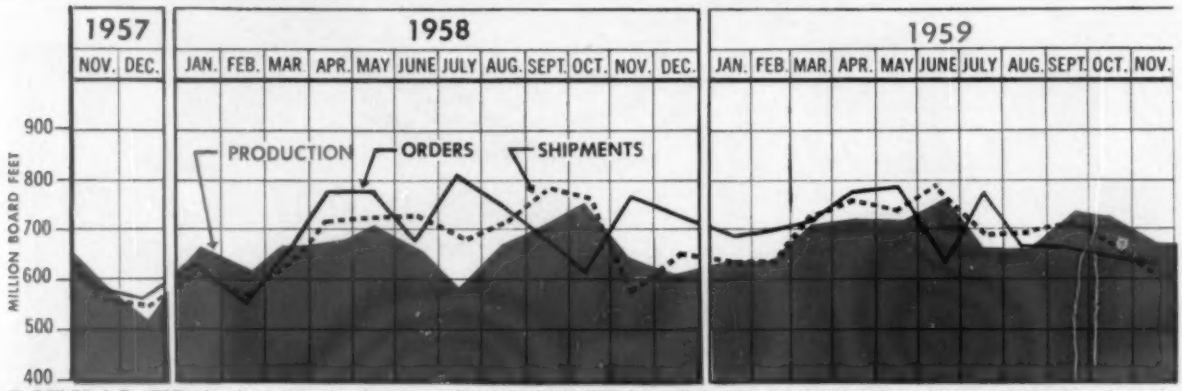
Company.....

Street.....

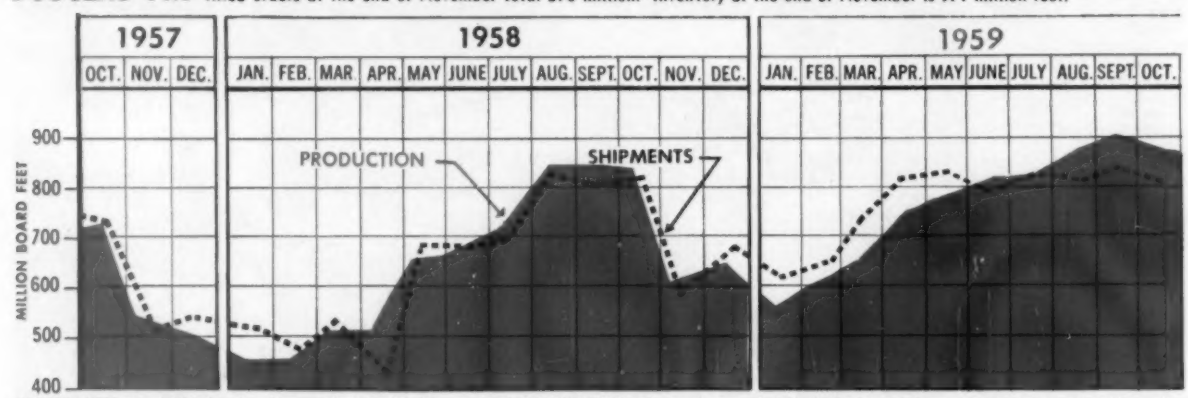
City.....State.....

1-D-1

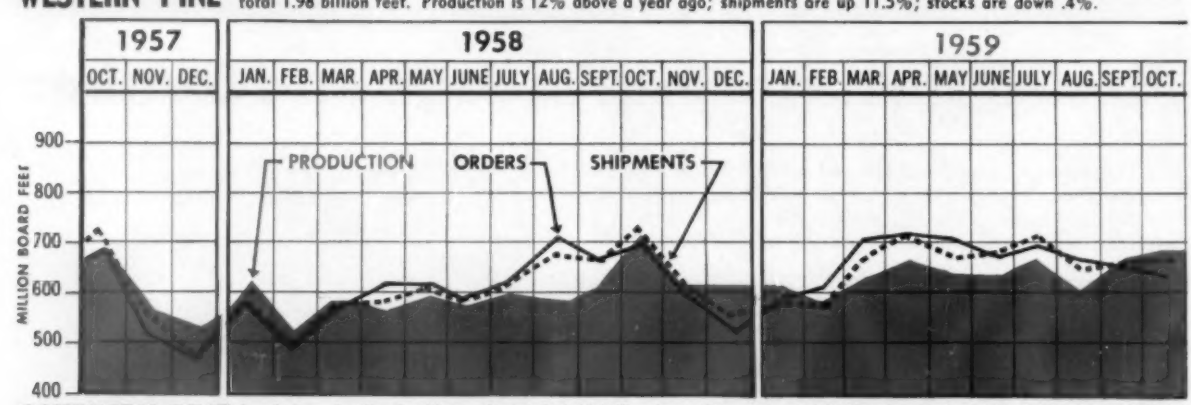
INDUSTRY TRENDS More TRENDS on page 75



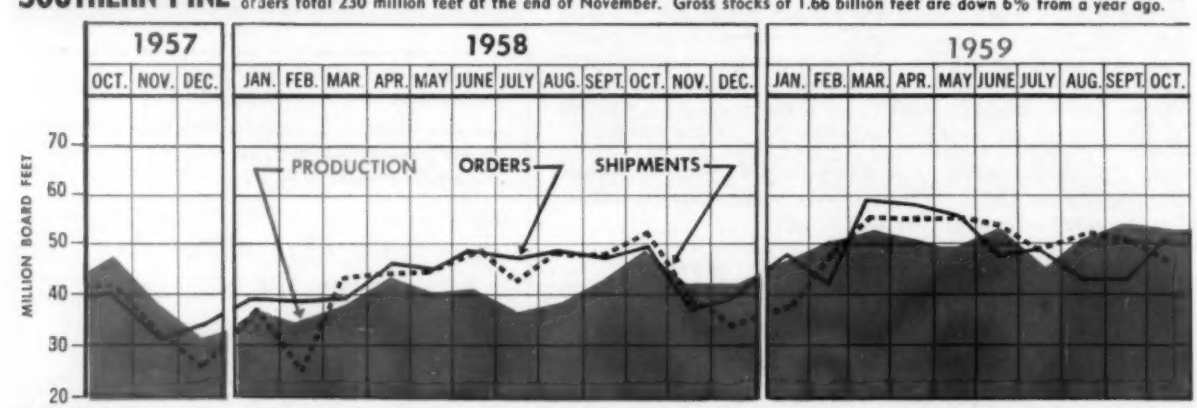
DOUGLAS FIR Lumber production for 11 months totals 7.73 billion feet. Orders total 7.65 billion feet, shipments 7.68 billion feet. Unfilled orders at the end of November total 570 million. Inventory at the end of November is 971 million feet.



WESTERN PINE Lumber production for 10 months totals 7.97 billion feet, shipments 7.99 billion feet. Gross stocks at the end of November total 1.98 billion feet. Production is 12% above a year ago; shipments are up 11.5%; stocks are down .4%.



SOUTHERN PINE Lumber production for 10 months totals 6.45 billion feet; shipments 6.54 billion feet, orders 6.58 billion feet. Unfilled orders total 230 million feet at the end of November. Gross stocks of 1.66 billion feet are down 6% from a year ago.



REDWOOD Lumber production for 10 months totals 514.6 million feet, shipments 495.8 million feet, orders 486.9 million feet. Stocks on hand at the end of October total 367 million feet compared to 357 million feet in 1958.

MOBIL

Amazing how hard some people work to get where they're going. They flounder in a haze, a daze or a maze! The smart operator knows the shortest distance to more profits is simply to steer clear of dead-enders like accidents, costly repairs, high insurance premiums and other operational pitfalls. If you feel like your fleet is caught up in a maze-break out! Put your drivers on a fresh course...a special 3 or 6 session training course for fleet drivers and mechanics now being offered through MOBIL representatives. The course is designed to teach your drivers and mechanics how to avoid costly errors in safety and equipment upkeep. In short, it will take them out of the maze and head them in the direction of fewer accidents, fewer overhauls, and lower insurance rates. And that adds up to lower operating costs for you. Your MOBIL fleet representative has the details, talk to him.

2-271

Mobil

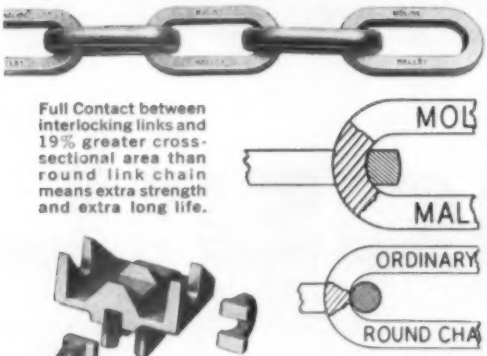
when the chips are down...

You win with Moline Pangborn Flights

"Standard" Flights
Dimensional Diagram of a Moline "Standard" Flight
Dimensional Diagram of a Moline High Face or "Special" Flight
High Faced or "Special" Flights

For more efficient handling of lumber and pulp mill refuse, Pangborn Flights are inserted as a link in the chains—are not just fastened to the chain. They provide cleaner scraping action, greater load capacity and will not "ride over" material. Two types: "standard" for average horizontal operation and up to 35° inclines; "special" with 50% greater pushing area for heavy duty service and inclines up to 55°. Chains are available assembled with flights spaced every 6th, 8th, 10th, 12th or 14th link.

Guaranteed Best by the TRIPLE-TEST!



Full Contact between interlocking links and 19% greater cross-sectional area than round link chain means extra strength and extra long life.

Everybody claims high quality, but Moline does something about it. Many years ago Moline established a standard of quality that is unmatched in industry. At the same time, they set up a series of quality controls—*Moline's exclusive triple testing*—which has extra test procedures to guarantee the ultimate in trouble-free performance and years of service life for Moline Mill Chains.

Moline Long Link Chains are stronger, pound for pound, than comparable sizes of "pin type" chains. Because they are "in tension" under load rather than "in shear" as pin type chains are. Moline Long Link Chains can be used on conveyors with long centers. They are available in Malloy or Manganese Steel in different sizes to suit your job requirements.

Write for information and engineering data today!

Specializing in the manufacture of chains

Moline Chains

60 Years in Lumber Service

for conveying, elevating and power transmission

MOLINE MALLEABLE IRON CO., St. Charles, Illinois

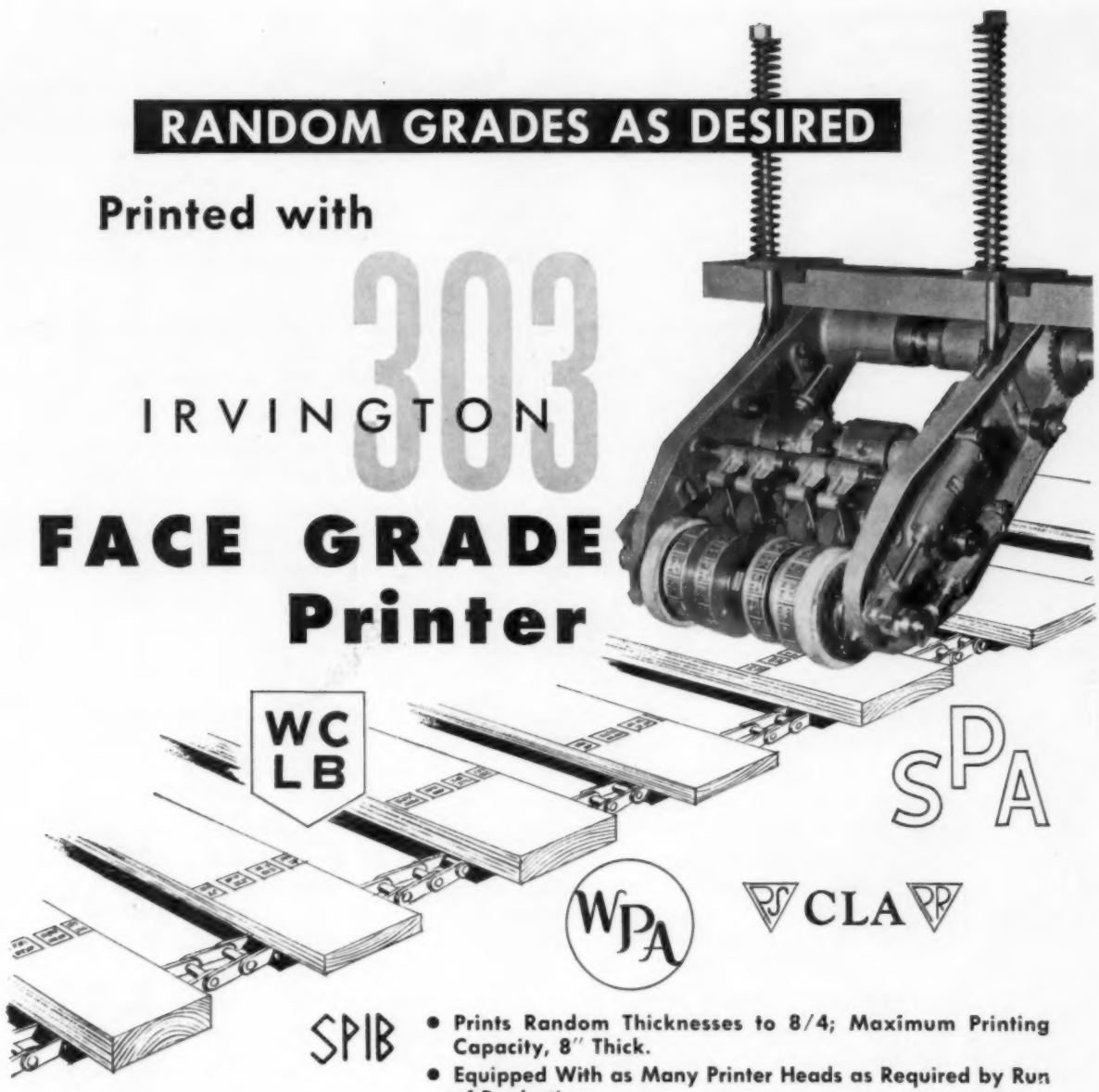
FOR SALES AND SERVICE, CONTACT... ARIZONA: Phoenix—Semon Bearing Co.; **Flagstaff**—Arizona Supply Co. **CALIFORNIA: Los Angeles**—**J. W. Minder Chain & Gear Co.**, 6011 So. Central Ave., ADams 3-7221; **San Francisco**—Charles A. Fowler Co., 979 Bryant St.; **Arcata**—Reliable Hardware; **Fresno & Sacramento**—Geo. M. Philpot Co., Inc.; **Fresno**—Gordon Equip. Co.; **San Leandro**—Monarch Corp. **OREGON: Portland**—**J. W. Minder Chain & Gear Co.**, 307 S. E. Hawthorne Blvd. BEImont 6-1131; **Astoria**—Esco; **Eugene**—**Fisher Bros. Co.**; **Medford**—Cal-Ore Machinery; **Salem**—Mill Supply Co. **WASHINGTON: Seattle**—**Chain Gear, Inc.**, 820 First Ave. South, MAin 2-7000; **Yakima**—**Chain Gear, Inc.**, 502 South First St., GLencourt 3-3157; **Bellingham**—Schuman Steel Prod.; **Everett**—Greenshield's Ind. Supply; **Longview**—Longview Equipment; **Spokane**—Nott-Atwater Co.; **Tacoma**—Reel Machinery Co. **CANADA: Vancouver, B. C.**—**Western Equipment Ltd.**, 102 Main St., TAtlow 2331; **Victoria, B.C.**—**Western Equipment Ltd.**, 2003 Government St., GA 1413.

RANDOM GRADES AS DESIRED

Printed with

IRVINGTON 303

FACE GRADE Printer



- Prints Random Thicknesses to 8/4; Maximum Printing Capacity, 8" Thick.
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FLAKEBOARD PRODUCTION IN MARCH . . . The new Cedawood flakeboard plant of Mel Lester at Sweet Home, Ore., will be in production in March, owner Lester reports. Initial output will be 65 tons a day. The boards produced will be one-third cedar, two-thirds alder. Cedar will come from Lester's shingle mill. Alder will be purchased.

TREATING PLANT OPERATING . . . Forest Products Pressure Treating and Framing Co. at Smelterville, Ida., has started operating. The plant was designed by Osmose Wood Preserving Co., will have a capacity of 5 million board feet a year. Owners are James Bening and John Strobel.

B. C. PLANT EXPANDING . . . British Columbia Forest Products, Ltd., is spending $300,000 on its Victoria operation to make it possible to handle smaller logs which have not in the past been cut at the mill. Major items in the expansion project are a whole log gang and a chipper. Completion is expected early in 1960.

EDGE-GLUING PLANT DUE . . . Intermountain Lumber Co., Missoula, Mont., is constructing an edge-gluing plant at a cost of $350,000. The new plant uses wood widely. Laminated beams and post will frame the structure which will be sheathed with Broadboard, the firm's marketing name for its sheetboard. The plant will have a capacity of 30,000 board feet a shift. Most of output will go into sheetboard.

NEW MILLS IN TEXAS . . . G. B. Carter Lumber Co., Cleveland, Tex., has opened a new mill at DeQuincy, in Calcasieu parish on the old Penton Lumber Co. site. A second plant was opened by Crawford Young Lumber Co. of Chestnut in Natchitoches parish. The latter replaces a mill which burned three years ago.

LOW QUALITY PINE TO SUPPLY PAPER MILL . . . Southwest Lumber Mills, Inc., Phoenix, Ariz., has been awarded a sale contract for 6 million cords of small and low quality ponderosa pine and other species which will feed a paper plant to be built near Snowflake, Ariz. The timber is to be harvested on a thinning and salvage basis over 30 years. The timber is located on the Colorado plateau of Arizona and New Mexico.

PARTICLE BOARD PLANT PLANNED . . . Aberdeen Plywood & Veneer, Inc., Aberdeen, Wash., has disclosed plans for constructing a $1.4 million particle board plant on property of the Port of Grays Harbor. The plant would be financed from proceeds of a common stock sale.

Personalities . . .

NORTHERN JOBBERS PICK WHITMER . . . David Whitmer, The Whitmer Jackson Co., Buffalo, N. Y., is the new president of the Northern Sash & Door Jobbers Association. Also named at the annual meeting of the group at White Sulphur Springs, W. Va., was Arne C. Kindem, A. A. Kindem & Sons, Inc., Minneapolis, Minn., vice-president. Carl W. Nagle continues as association secretary.

PUBLICITY-ADVERTISING MAN NAMED . . . Kenneth C. Brumley, most recently in the public relations division of the Aluminum Ltd. group of companies, has been named advertising and publicity supervisor for the Plywood Manufacturers Association of British Columbia. Brumley has been in editorial and publicity work in Canada since 1953.

PONDEROSA PINE PICKS HERBST . . . Robert H. Herbst has been appointed general manager of Ponderosa Pine Woodwork, succeeding R. H. Morris, recently deceased. Herbst has been assistant manager of the group since 1954.

1960 DODGE STAKES TOP THEIR FIELD

in power, load space...looks!

Sturdy Dodge stakes lead trucks "F" and "C" in *many* ways . . . yet cost about the same.

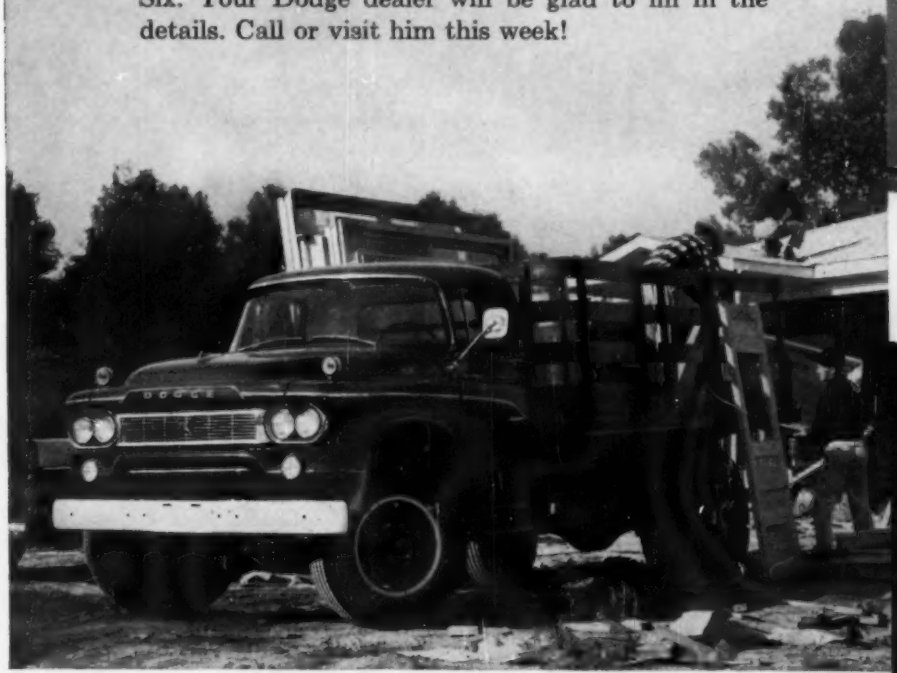
Take power, for instance. In the medium-tonnage range, Dodge's optional 318-cu. in. V-8 tops the "F" truck by 22 horsepower, the "C" truck by 42! Or take load space. Only Dodge offers you a stake body 14 feet long. That's a full two feet longer than competition's biggest stake, to give you extra floor space for bulky cargo! As for looks, well . . . it's pretty obvious that Dodge is second to none.

Available in four lengths (7½, 9, 12 and 14 feet), Dodge stakes are quality-built with G.V.W. ratings from 4,250 to 19,500 lbs. Choice of V-8 or thrifty Six. Your Dodge dealer will be glad to fill in the details. Call or visit him this week!

STEEL SUPPORTING RAILS run full length and width under the Dodge stake body for sturdy, long-lasting support. An exclusive feature, typical of the bonus quality you get in Dodge trucks for 1960!

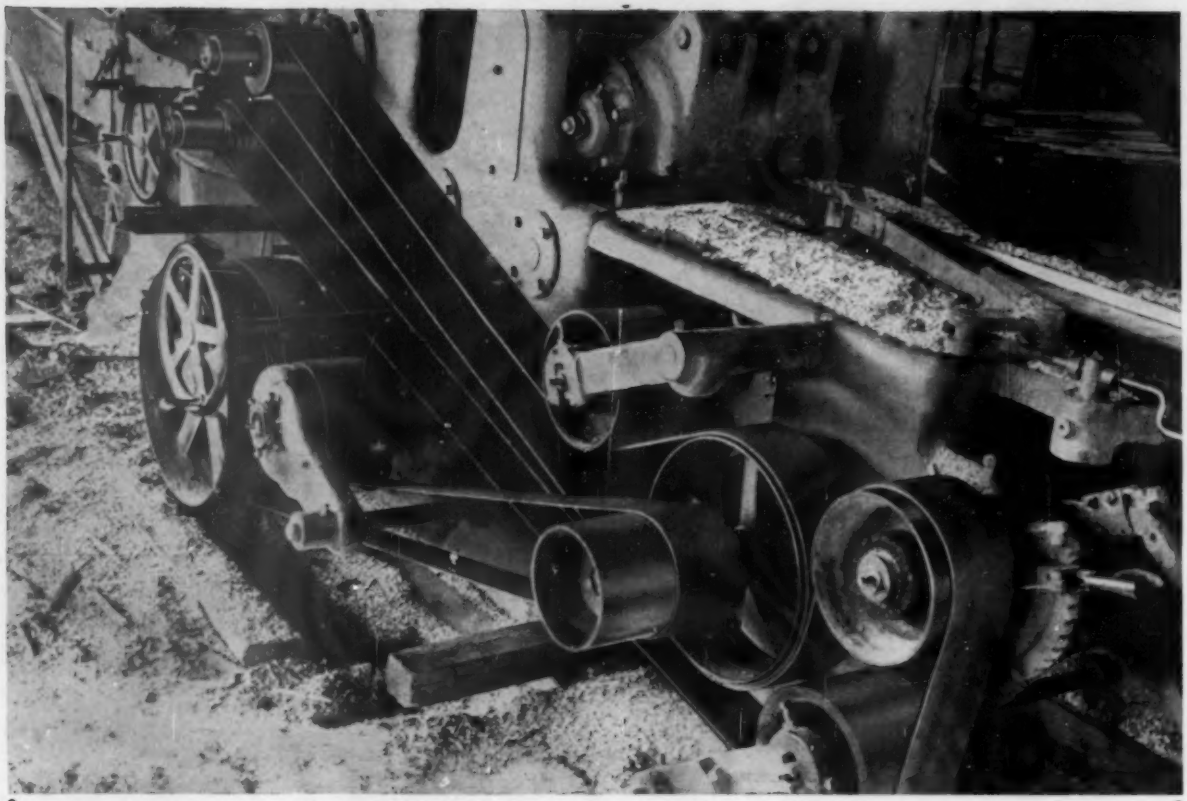
ONLY IN DODGE CABS, among the three makes, will you find these features: driver-adjustable hand-brake lever, coil-spring seat cushions . . . and storage space behind the seat.

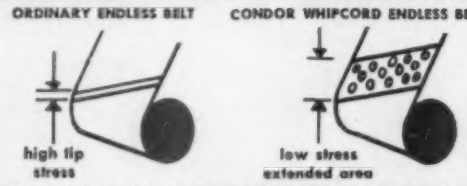
DODGE FULL-OPENING HOOD raises to a straight-up, 90-degree position for easy engine servicing, with plenty of light and maximum elbowroom. Only Dodge has it!



DEPEND ON **DODGE** TO SAVE YOU MONEY IN **TRUCKS**

A PRODUCT OF CHRYSLER CORPORATION





"MORE USE PER DOLLAR"

Exclusive Extensible-Tip Cover Splice extends stress over wide area with special rubber rivets . . . prevents cover separation under tension . . . prolongs endless belt life.

CONDOR ENDLESS BELTS OUTLAST 3 TO 10 ORDINARY BELTS

All-purpose Condor Whipcord Endless Belts provide steady, unfailing power delivery with high overload capacity—outlast as many as 10 ordinary belts on the toughest drives. Condor Belts feature an endless-wound, sealed-in cord construction which is destretched during manufacture. They can't shrink on the drive, are virtually unaffected by atmospheric changes. Manhattan's exclusive Extensible-Tip cover splice assures positive protection against cover separation—even at highest tensions.

Highly flexible, Condor Endless Belts offer exceptional advantages where serpentine drives supply power for several operations. Write for Bulletin 6869.

CONDOR COMPENSATED BELT

On closed drives where fasteners are required, Condor Compensated Belt holds fasteners up to 4 times longer than other belts. An exclusive process *equalizes* belt ply stresses rounding pulleys . . . eliminates ply rupture and separation—*especially at the fasteners!* Write for Bulletin 6808.

RM1040

LET AN R/M REPRESENTATIVE HELP YOU SELECT THE CONDOR BELT ENGINEERED TO GIVE "MORE USE PER DOLLAR".

RAYBESTOS-MANHATTAN, INC.

MANHATTAN RUBBER DIVISION, PASSAIC, NEW JERSEY

CONDOR WHIPCORD ENDLESS BELTS

- **For High Speeds, Heavy Loads, Short Centers... at High Tensions**
- **Length Unaffected by Atmospheric Changes**
- **Ideal for Serpentine Drives...Small Pulleys, Reverse Bends, Short Centers**
- **Selection of Driving Surfaces to Meet Tension Requirements**

RM

ENGINEERED RUBBER PRODUCTS ... MORE USE PER DOLLAR

Serving the Industry Since 1852

FORTUNES from FLAKES!

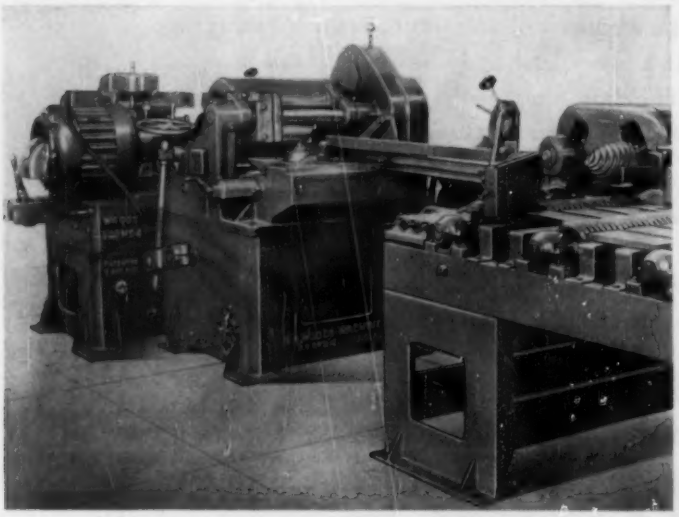
with a

WOODS 900 FLAKER-SURFACER

The Woods 900 MS Series Flaker-Surfacer introduces a new concept of wood working machinery to effect a more profitable utilization from stock being processed.

From the excess material of the rough lumber to be finished, this machine will produce wood flakes instead of sawdust and planer shavings. The size of the flakes can be varied to meet the demand.

These wood flakes contain the strength properties and desired fibre length of the wood to make them a very valuable raw material for the pulp, paper and composition board industries.



Woods 900 MS Series Flaker-Surfacer shown set up with automatic feed table and located ahead of planer and matcher or surfacer. Stock can be properly processed with this combination at speeds to 1000 linear feet per minute.

Flaker head is equipped with multiple radial knives arranged in a unique helical-spiral knife line. The knives cut parallel with, but in a special arc across the grain, removing the excess wood in uniform, longitudinally grain spiral end flakes, leaving a flat surface on the stock for final finish by the planer knives.

To get additional information about this money-making Flaker-Surfacer, cut out this coupon, attach it to your letterhead and mail it now.

S. A. WOODS MACHINE CO., DEPT. L
27 Damrell St., Boston 27, Mass.

Kindly send descriptive literature on the Woods 900 Series Flaker-Surfacer to us.

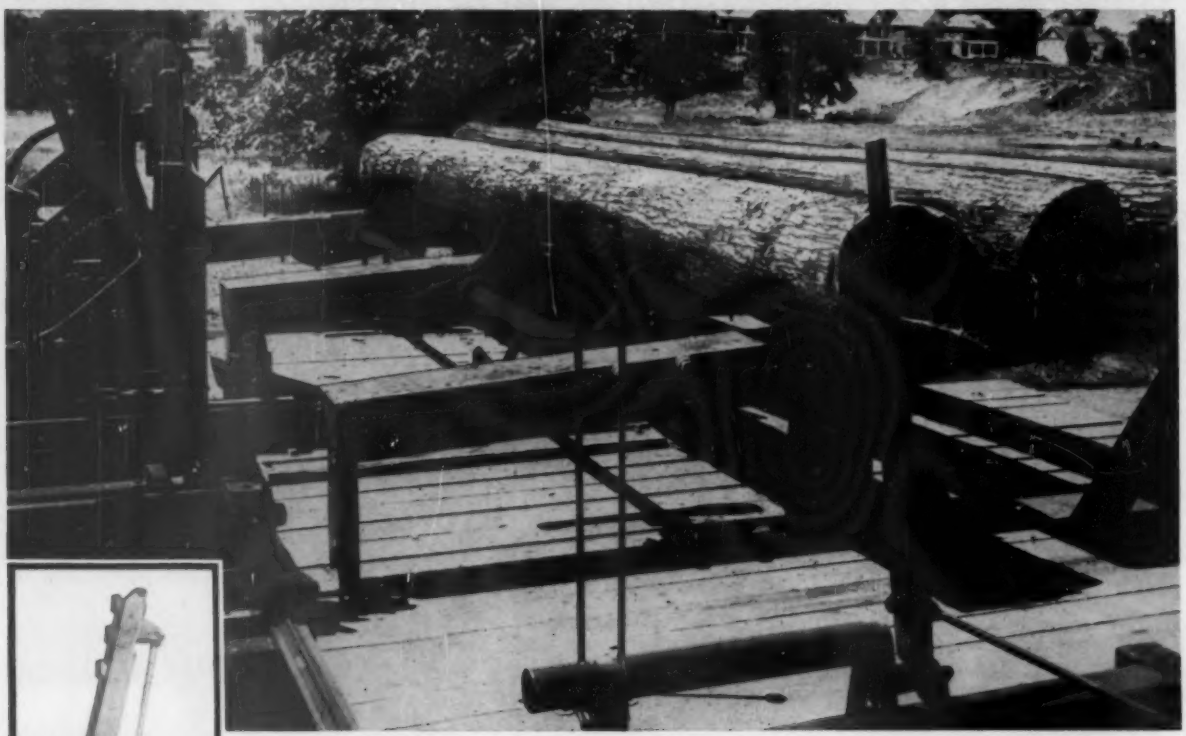
Attention_____

S. A. WOODS MACHINE CO.

27 DAMRELL STREET

BOSTON 27, MASS.

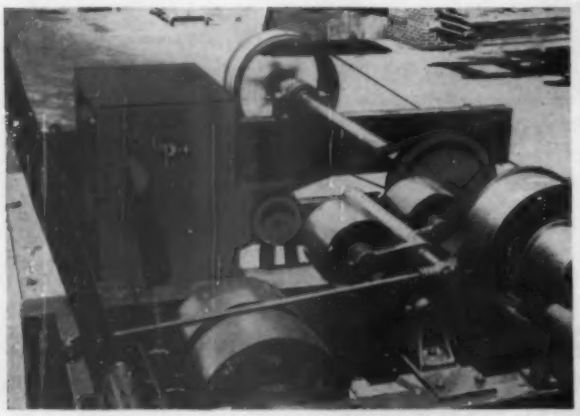
Introducing FRICK'S New
HYDRAULIC LOG TURNER & STOP-and-LOADER



Hydraulic Log Turner

Here is the best combination for increased production of top grade lumber . . . at a lower cost and with less labor. Designed for efficiency and dependability, this equipment is backed by a manufacturer with over 100 years experience in making sawmill machinery.

One of our factory representatives will be glad to inspect your mill and recommend the machinery that will enable you to make a greater profit with a minimum investment. There are 5 sizes in FRICK Sawmills. One to meet your exact requirements. The log turner is adaptable to all makes of mills large enough to utilize mechanical equipment.



Central reservoir and pump for hydraulic system.

Call or see

your nearest Frick man for information on . . .
SAWMILLS, BOSS and HAMMER DOGS,
SAW GUIDES, OVERHEAD SAWDUST DRAGS,
EDGERS, AIR OPERATED DOGS,
HYDRAULIC FEEDS, TRIMMERS, and other new sawmill equipment.

●

WRITE FOR THESE NEW CATALOGS TODAY:
Hydraulic Log Turner & Stop-Loader—Catalog No. 81
Frick Sawmills & Accessories—Catalog No. 75

FARM & SAWMILL MACHINERY SINCE 1853

Frick Co.

WAYNESBORO PENNSYLVANIA, U.S.A.

TRIAL SAMPLES

of World-Famous WHITMORE'S LUBRICANTS Now in Spray-On-Cans and Cartridges!

WHITMORE'S WIRE ROPE SPRAY INCREASES WIRE ROPE LIFE UP TO 300%

Exclusive formulas for lubricating and protecting wire rope, chain, springs. Penetrates to the core of wire rope minimizing internal friction and increasing usable life up to 300%—special protective qualities absolutely eliminate internal and external corrosion—non-gumming qualities reduce "carry-back"—packaged in handy 16 oz. aerosol spray-on containers or in bulk containers—send for a free trial sample.

WHITMORE'S LIQUID GEAR COMPOSITIONS ELIMINATE METAL TO METAL CONTACT

For open gears, dipper sticks, cams and sliding surfaces—exclusive formulas eliminate metal-to-metal contact, keep wear on the lubricant not the metal—no breakdown even after prolonged use under water—available for every climatic condition—packaged in handy 16-oz. aerosol spray-on containers or in bulk containers—send for a free trial sample.

WHITMORE'S ANTI-FRICTION COMPOSITIONS HAVE NO MELTING OR DROPPING POINT

Packaged in 14½ oz. cartridges for handy application with lever-type cartridge guns for constant protection to roller, ball, sleeve bearings and sliding surfaces in "hot" bearing applications or in areas with high ambient heat. Exclusive formulas have no melting or dropping point; moisture resistant; will not wash out; exceptional metal adherence properties; temperature reducing qualities; extreme pressure values. Available in two grades. Whitmore's Anti-Friction Composition No. 1 (light density), recommended for high speed, high temperature applications. Anti-Friction Composition No. 2 (heavier density), for low speed high temperature applications or loosely-fitted bearings. Specify No. when requesting free trial sample.

65 YEARS OF LEADERSHIP
LUBRICATING THE FOLLOWING:

- Open Gears, Dipper Sticks, Cams
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CLEVELAND 4, OHIO, U.S.A.
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The Whitmore Mfg. Co., Cleveland 4, Ohio

Please send me free TRIAL SAMPLES of the following:

- ☐ WIRE ROPE SPRAY
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COMPANY_____

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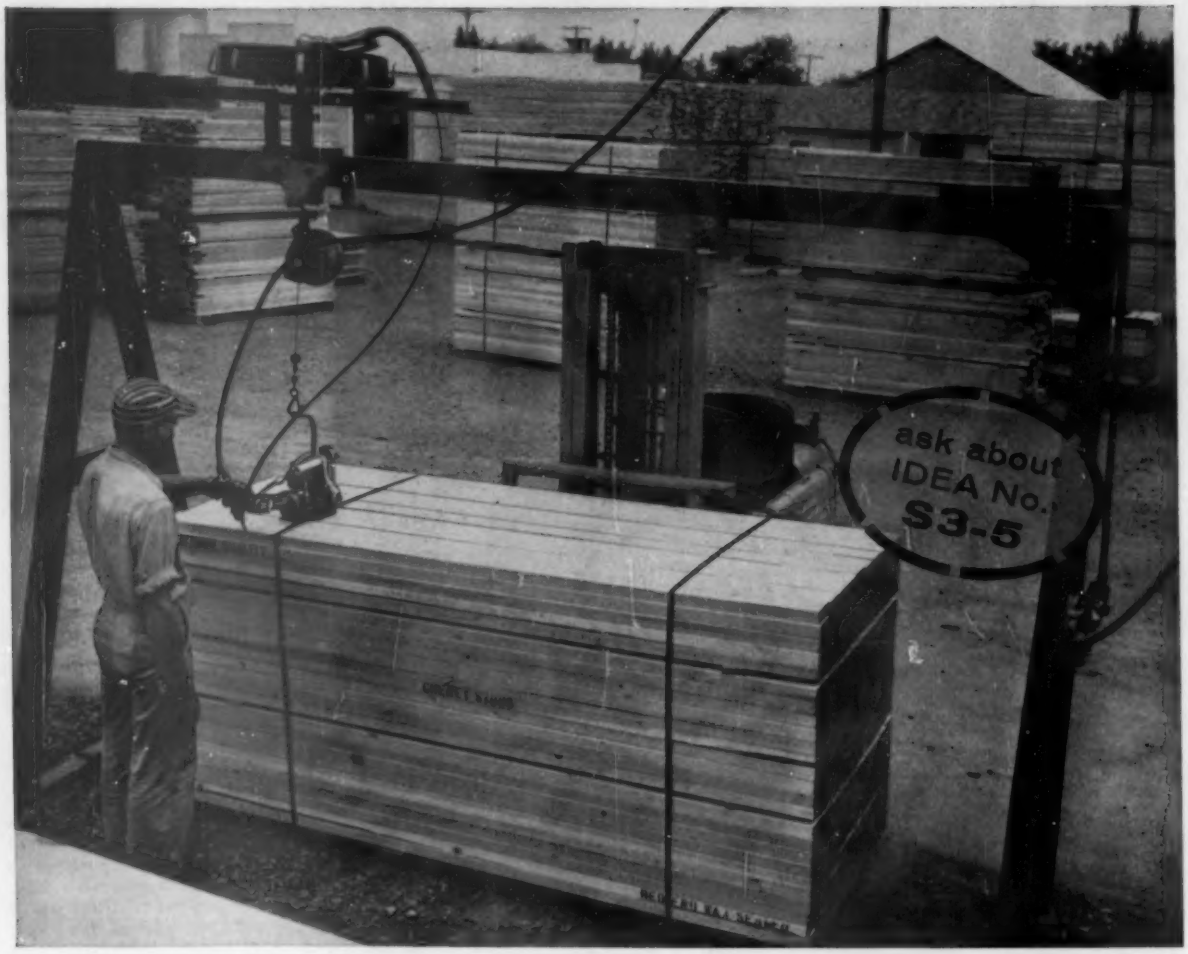

Use your AIM* . . . Cheney Forest Products does . . .
Steel Strapping cuts carloading time 90%

Acme Idea Man, B. J. Malloy helps many progressive companies solve material handling problems.

CHENEY FOREST PRODUCTS, INC., CENTRAL POINT, OREGON, sought a faster method of handling dimension lumber, such as studs. Their Acme Idea Man suggested packaging, using a fully powered A4 Steelstrapper and Acme Steel Strapping. (Idea No. S3-5)

With the air powered A4, minimum operator effort is required, yet steel strapping is uniformly applied with pre-determined tension, sealed and cut, unitizing studs in tight, secure packages. Carloading time has been cut by more than 90%.

Customers like packaged lumber, too. Unloading is easy and transit damage has been reduced to a minimum.

***Use your Acme Idea Man.** Call him or write Dept. **LBS-10**
Acme Steel Products Division, Acme Steel Company,
1025 Sixth Avenue S., Seattle 4, Washington. Also Portland, Oregon.
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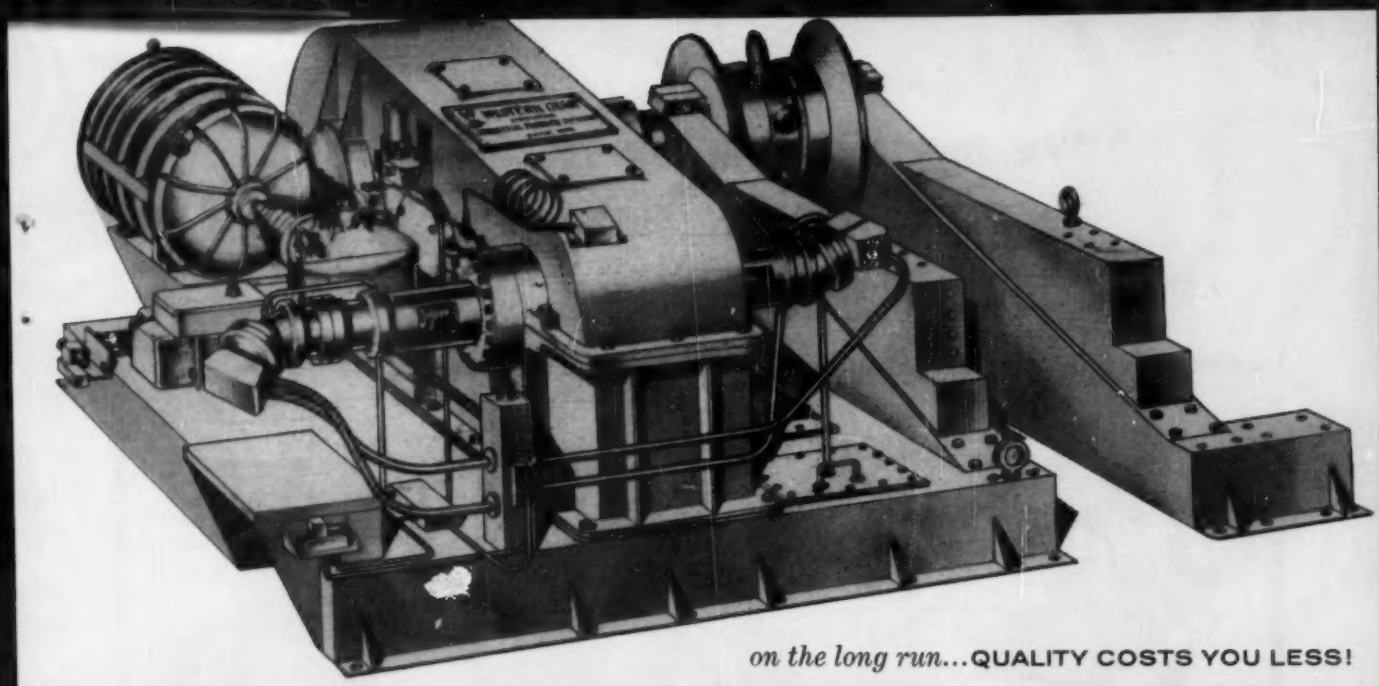
743 Warden Avenue, Toronto 13, Ontario.

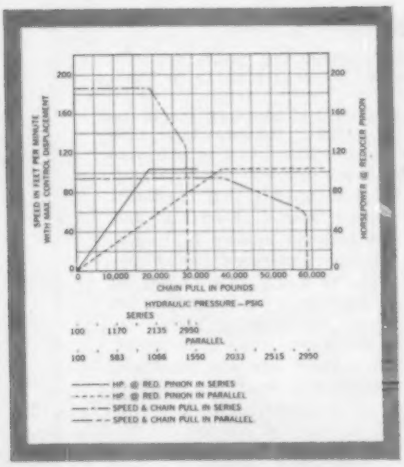
ACME STEEL **STEEL STRAPPING**



on the long run... **QUALITY COSTS YOU LESS!**

ANOTHER WESTERN GEAR "FIRST"...ELECTRO-HYDRAULIC LOG HAUL DEVELOPED FOR ALASKA LUMBER & PULP COMPANY

The electro-hydraulic log haul pictured here, unique among the 175 gear drives supplied for the new mill embodies a new concept developed by Western Gear engi-



Operational requirements were: 48 ft. of rise in 220 ft. of haul; maximum chain pull not less than 50,000 lbs. nor more than 65,000 lbs; haul 200 ft. of 24" diameter logs at 120 ft. per minute.

Extra measures of quality that made this design the most practical and economical choice over all other log haul drives are:

1. Infinite speed variation from 0-185 FPM permits continuous maximum mill flow regardless of variable debarking time.

2. Horsepower Limiter Control automatically adjusts for maximum preset horsepower to allow full capacity operation regardless of load.

3. Absence of shock loads. Electric motor runs continuously, softer starting of hydraulic drives eliminate major service problem.

4. Positive Overload Protection. High response relief valve removes pressure to motor, instantly sets fail-safe hydraulic brake.

5. Unitized Construction integrates base, valve components and piping into protected self-contained package, completely tested at factory.

The considerable knowledge of marine electro hydraulic deck machinery combined with their background in power transmission equipment and log haul was invaluable in the Western Gear development of this important new concept of log haul design.

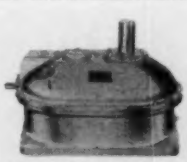
Western Gear's experience in electro-hydraulics and infinitely variable speed power transmissions can solve your drive problems. For full information, write, wire or phone:

INDUSTRIAL PRODUCTS DIVISION
P. O. Box 126, Belmont, California
Phone: LYtell 3-7611

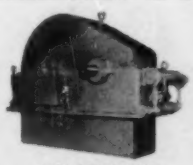
WG INDUSTRIAL PRODUCTS DIVISION

INTEGRAL GEARMOTOR

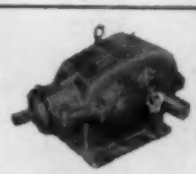
PARALLEL SHAFT REDUCER



VERTICAL SHAFT REDUCER



HIGH SPEED UNIT



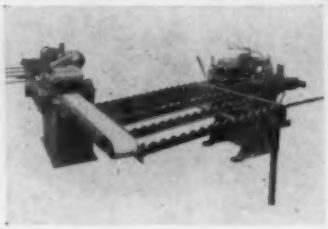
RIGHT ANGLE REDUCER

Save money . . . improve production . . . turn waste into profits with these precision machines!

Model T36-4

Tri-State Tilting Band Resaw
(Also available as Band Ripsaw)

Outstanding flexibility, superior performance . . . whether it is straight sawing or bevel sawing. Features include: 4" wide blade, 36" wheels, standard 20 h.p. drive motor; adjusto-speed feed motors—10 to 250 feet per minute; ball and roller bearings throughout. Feed works tilts up to 45° for bevel sawing.



Model 34-58 Shaper
Model 34-56 Assembly

Small Finger Joint Setup

Profit-maker for smaller plants. Upgrades scrap and waste shorts into usable lengths. Cuts finger joints and spreads glue in joints. Only line with aluminum back-up blocks. No cutterhead tear-out. Assures accurate joints. Varying lengths of fingers are made by using different thickness spacer plates between circular bits.

Air-Actuated Cut-Off Saws

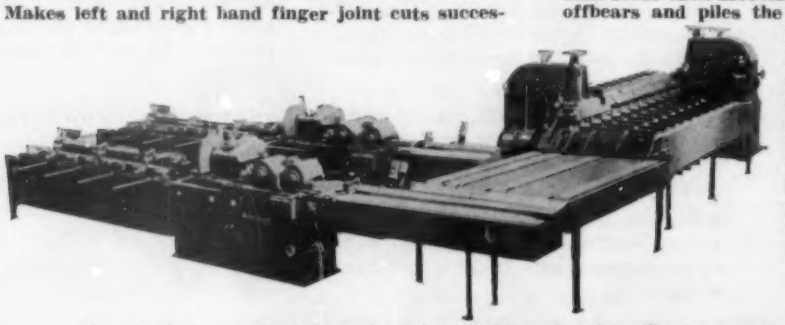
Fast, efficient, accurate, safe, profitable to operate. Left and right hand models. Adjust from 0 to 90 strokes per minute. Four models: Models 500 and 501 with 5 h.p. motor handle rough lumber up to 2"x8". Models 510 and 511 with 7½ h.p. motor handle up to 2"x12". Complete with manual starter, built-in pushbutton station and overload protection.

Model 3470
DUAL FINGER JOINT SHAPER

Industrial dual Finger Joint Shaper No. 3470 consists of left and right hand shaper on common chain bed with side conveyors. It's a real cost-cutter and money-maker. Turns shorts and lumber odds and ends into usable, salable, profitable material.

Makes left and right hand finger joint cuts successively and applies glue—preparing stock for two assembly machines having capacities up to 100 lineal f.p.m. each.

A single operator feeds rough or surfaced stock (as short as 10 in., as long as 8 ft.) into machine. One man feeds each assembly machine and a fourth man offbears and piles the finger-jointed stock.



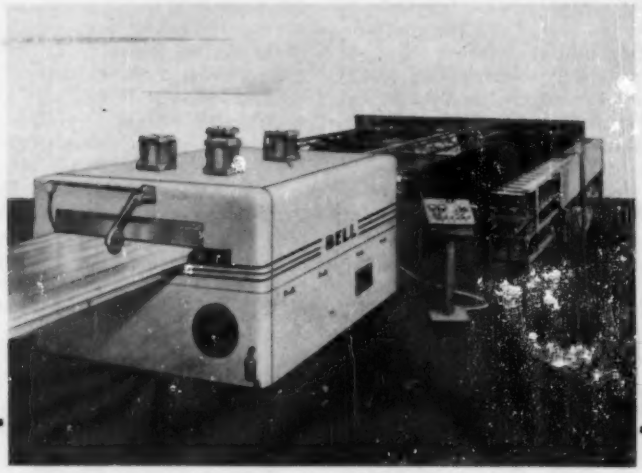
Drive is 7½ h.p. variable speed motor. Each of two cutterhead motors is 10 h.p. and each of two trimsaw motors is 3 h.p. All Industrial Dual Finger Joint-Shapers have interlocking and overload protetive switches. Necessary air and electrical equipment ready for connection to power supply.

Let us tell you more about the *merits* of these machines—how they will cut your costs and increase your profits.

TRI-STATE MACHINERY COMPANY
3000 COMMERCE ST. DALLAS, TEXAS
Telephone: Riverside 7-3235

the new improved

BELL "300"



BOOSTS YOUR FINGER-JOINTING PROFITS

- **Glues Panels 8' to 24' Long Using Finger-Jointed Stock.**
- **Speeds Up Panel Gluing in Lumber Re-manufacturing Operations.**
- **Cuts Costs Drastically. Saves Space, Manpower, and Time.**

The Bell "300" shatters the barriers that have limited automated edge-gluing. It opens the door to new applications and new profits for any plant that produces panels in quantity.

Stock is fed through a dual glue roller, assembled on a pre-layup table, moved to the infeed section, and pushed into the press with a motor-driven ram. Curing can be done in increments best suited to your job. Side pressure of 600 lbs. P.S.I. is available.

All parts—including generator—are designed as a single integrated unit and completely built by Bell—ONE UNIT—ONE COMPANY—ONE RESPONSIBILITY.

The "300" arrives ready for immediate and quick installation.

For Information Write:

THE Bell MACHINE COMPANY

105 JACKSON DRIVE
OSHKOSH, WISCONSIN

COMING SOON!

WATCH FOR ANNOUNCEMENT

Lumber by the Yard is a benefit of end and edge gluing. Also, maximum value recovery from the lumber and the end user keeps waste to a

With the constant crowding of the profit margin in lumber production maximum value recovery from the raw material is a must. Add a customer benefit of exact lumber sizes and grades and you have an ideal combination for both the customer and producer.

End and edge gluing enables an operator to upgrade his material by taking out downgrading knots or other defects and glue the lumber to length or width giving a homogenous material of even appearance and strong structural qualities.

It's tailor-made for special orders. The factory can furnish lumber to off-standard lengths and widths with little or no waste, and for only a small premium over conventional sizes.

The end and edge gluing operation of Edward Hines Lumber Co. at Hines, Ore. is one of the more complete and highly-automated installations in the industry.

About 20,000 board feet of end-glued material is produced daily. A like amount of edge-glued material is also produced. The intermediate manufacture raises utility value of wood products by increasing the number of sizes and shapes needed for today's markets.

Monthly output is about 12 cars of finger jointed material and about six cars of panels. The plant uses about two million board feet of raw material monthly.

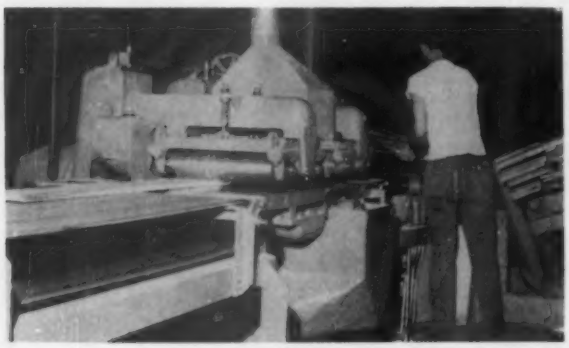
To do this 30 men work days—14 on the second shift. Basic production divisions are the cutup operation which runs two shifts and the two end gluing lines and the single edge gluing panel line. These operate a single shift.

All material employed—ponderosa pine—is kiln-dried to a uniform 6 to 10% moisture content. The stock is pre-surfaced in the firm's planer division hit and miss. Nominal 1-inch lumber is normally surfaced to 27/32-inch or ⅞ inch. If stock does not clean up, it is re-run thinner. The blanking gives the cutup man a good view of defects. He can effectively remove them.

A by-product of the cutup line, pieces as short as 11 inches, are used in the end-gluing line. A 2¼-inch width is the minimum in the edge gluing panel line. Maximum finger jointing length is 24 feet with a maximum panel size of 48 inches wide, 24 feet long and 4 inches thick. Most panel production is in 16-foot lengths.

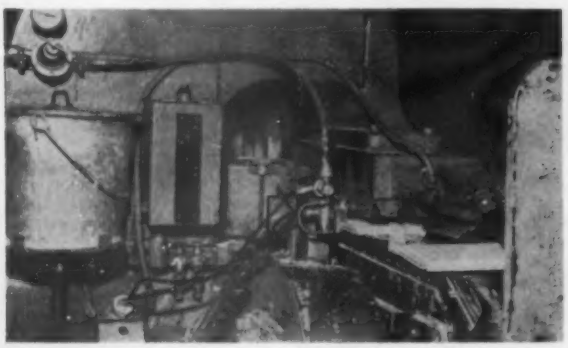
In production, the dried blanked stock is brought into the 160x260-foot building and allowed to condition—reach room temperature—before the cutup operation.

Cutup line can be fed through a tilting lift at the head of the line, but most stock enters through two ripsaws which rip for grade. About 15,000 board feet of high grade millwork is sorted off the chain daily as a by-product of the cutup operation. It is either bundled for shipment di-

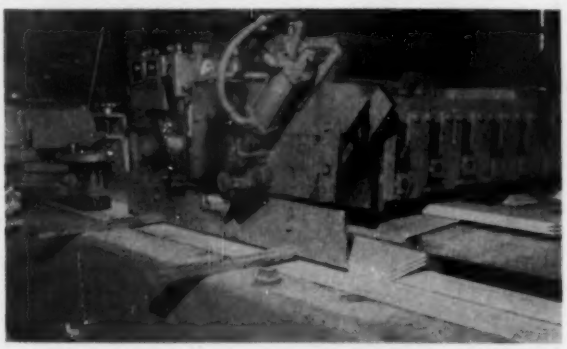


1 Lumber enters cutup line serving both end and edge gluing operation by way of Mereen Johnson and Schurman ripsaws that rip material for stock.

2 Cutup line employs 8 Industrial cutup saws cutting out defects. Stock proceeds down line to sorting. Residues return from sorting chain to pulverizer for fuel.



5 Glue spreader is air-operated head (arrow). After first end is jointed, piece is crowded by belt so other end passes second section trimsaw, jointer and spreader.



6 Crowding section on offbear end of spreader brings pieces together for fast assembly. Air piston (arrow) injects pieces, provides end-pressure.

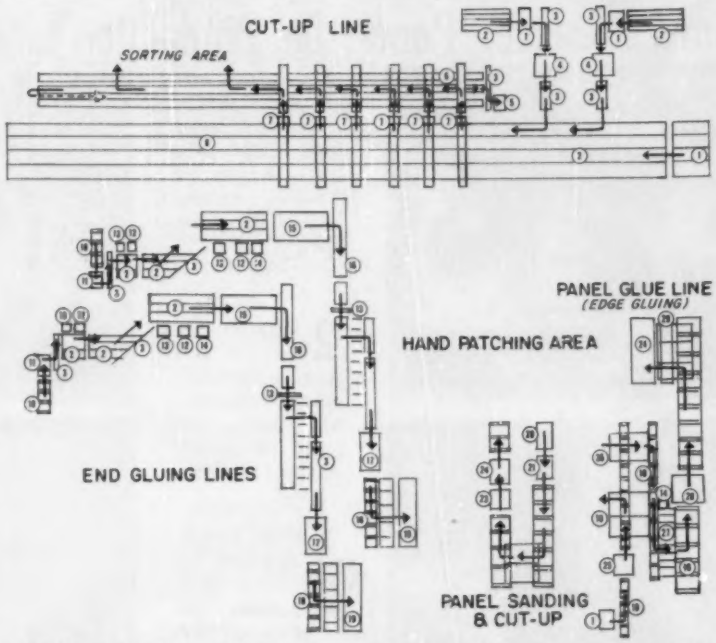
the manufacturer secures minimum.

rectly or sent back to the planer department for further manufacture.

The stock then proceeds past the cutup saws. Residues from this operation go past an automatic chop saw which cuts them to 1-foot pieces; they then proceed to the hammermill to be milled for fuel.

Stock for gluing is sorted and stacked and goes to one of the two finger jointing lines for end gluing and shipment or possible further gluing in the panel line. A melamine waterproof glue is used.

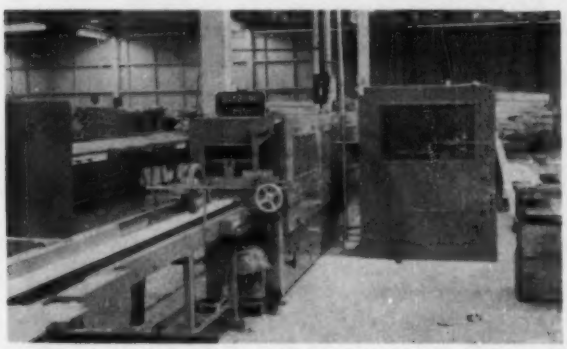
The process and production line was designed by John H. Syme, Hines' development director at Hood River, Ore. Jeff Cromeens, president of Industrial Woodworking Machine Co., Inc., Garland, Texas performed the detail equipment design and manufacture of most of the specialized equipment. Harvey Pierce is plant superintendent under vice president A. R. Dewey and plant superintendent Sidney I. Merseth.



1. Tilt lift; 2. feed chains; 3. belt; 4. ripsaws; 5. hammer pulverizer; 6. return belts taking scrap to hammer pulverizer; 7. cutup saw; 8. sorting chain; 9. transformers; 10. feed rolls; 11. tilt lift; 12. finger jointer; 13. trimsaw; 14. gluer; 15. crowding section; 16. feeding and end-pressure; 17. RF press; 18. roll case and kicker; 19. stacking area; 20. automatic feeder; 21. 8-drum sander; 22. stacker; 23. panel rip and tenoner; 24. automatic stacker; 25. jointer; 26. hand feeding into panel line; 27. panel make up area; 28. RF press; 29. trimmer.

3 Cutup saw is Industrial unit. Operator picks material from feed chain and cuts out defects. Good material drops onto sorting chains. Stops provide standard lengths.

4 Finger jointing line starts at Industrial breakdown hoist. Pieces travel across rubber belt to man feeding lugs that take pieces to Industrial trimsaw, jointer.

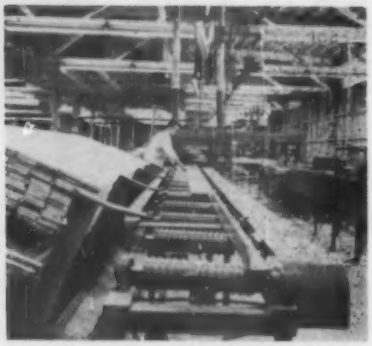


7 Gluesetting is accomplished in automatically fed Raybond 28KW RF unit. Circuit breaker automatically prevents burning of stock if the press time is too long.

8 Jointed lengths are stacked on offbear end of gluer. They may be shipped, or go to panel layup.

More HINES on next page

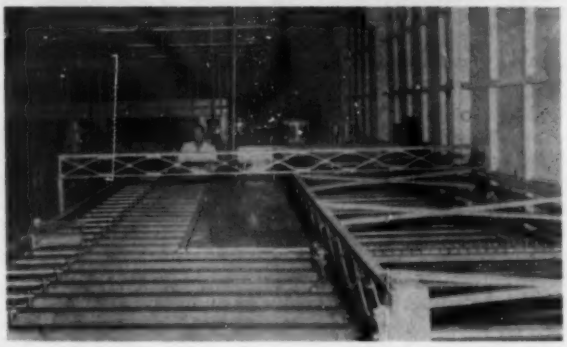
Hines Produces Panels on Production Line



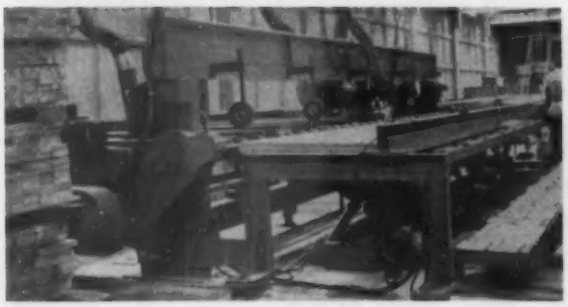
1 Jointer is Mereen Johnson traveling head unit which joins both edges of boards entering edge-gluing panel line.

2 Boards are sorted and stacked on offbear end of jointer. Stacks are made on pallets in panel widths.

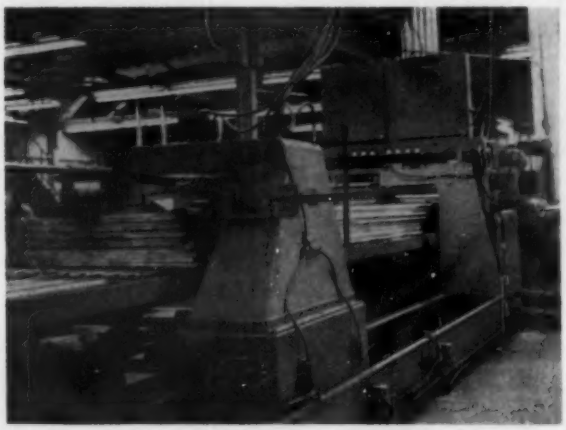
3 Edge glue is applied by rolls beside Bell panel press operator after boards have been fed into system. Panel makeup area is in front of operator. Press is a 45KW RF machine operating on 10 Mg.



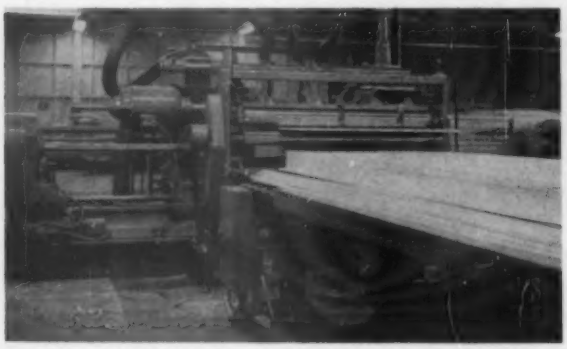
4 Panel makeup shows panel ready to enter press feed rolls. Boards come down roll case, left, hit Allen Bradley limit switch which actuates Bell transfer to makeup.



5 Panel sizer is Mereen Johnson unit. It can do cutup or trim rough ends. Panels go through saws, offbear onto Lawrence automatic stacker with transfer to sander.



6 Sander is Solem 8-drum machine fed by Lawrence automatic feeder. It applies sanded finish to both sides of the panel. The entire sanding line is automatic.



7 Greenlee tenoner in sanding line can give edge treatment, such as shiplap, as well as rip to special widths. It offbears to the Lawrence automatic stacker.

Equipment

LAWRENCE tilt lift and automatic feeder; MOLINE chains; MEREEN-JOHNSON ripsaws, trimmer, and jointer; JEFFREY hammer pulverizer; SCHURMAN MACHINE WORKS ripsaw and C&D setworks; INDUSTRIAL cutup saws, finger jointing, tilt lifts; RAYBOND RF presses; BELL RF press and panel system; SOLEM 8-drum sander; GREENLEE panel ripsaw and tenoner; MICRO SWITCH and ALLEN BRADLEY limit switches; GARDNER-DENVER air compressor; ALLIS-CHALMERS lift truck; ARCHER blower; WISCONSIN knives. ■■

Here are Answers to Your Questions On Leasing of Equipment

By ROBERT SHERIDAN, President
Nationwide Leasing Co., Chicago, Ill.

What is the volume of equipment leasing in the lumber industry?

At the end of 1958 there was approximately $2.7 million worth of production equipment on long-term lease in the lumber industry. This does not include the volume of equipment leased by wholesale and retail lumber dealers. All types of equipment are being leased, including tractors, log loaders, power shovels, bandmills, fire-protection equipment, slashers, surfacers, trimmers, conveyors and conveyor systems, hoists and cranes, kilns, sanders, and many others.

Major reasons for the growth of equipment leasing in the lumber industry are connected with the manufacturers' need to reduce production costs. These are: (1) to conserve working capital (inventory averages approximately 78% of the typical manufacturer's working capital), (2) to offset rising machinery costs while modernizing), and (3) to obtain more rapid writeoff of equipment acquisitions than are possible under government depreciation schedules.

What is the volume of equipment leasing by U.S. industry?

At the end of 1958 there was approximately $227 million worth of production equipment on long-term lease throughout U. S. industry.

What is equipment leasing?

Equipment leasing is a method of obtaining the use of income-producing equipment (fixed assets) without capital investment. When equipment is obtained in this way for use in production, the units remain the property of the leasing company, but are used by the lessee, who pays the leasing company a fixed charge for a stated period for using the equipment. Leasing is a long-term arrangement, normally from three to 10 years, though in some cases it may be as little as two years or as long as 15 years. It is different from equipment *rental* which is a short-term affair, in which the rental firm rents out new or used pieces for brief period, reclaims them at the end of the period, and then rents the equipment to other users.

How does equipment leasing work?

A company which wishes to lease equipment from Nationwide Leasing Company, for example, submits an application describing itself—its business, its financial position, etc. It lists the specific manufacturer from whom it wishes to secure the equipment, the price of the equipment, the length of the lease terms it desires, and the form of payment it desires. The leasing company then purchases the equipment and arranges for its shipment directly to the lessee's plant or store. Upon acceptance of the equipment, payments start. All equipment, no matter how many items are involved, can be covered by a single master lease and can be paid for in a single monthly payment. This is true regardless of how many suppliers are involved. This reduces the user's bookkeeping considerably.

What types of equipment are leased?

All types. In 1958, equipment leased ranged in cost from a $17 hand truck (part of a $140,000 equipment lease with a midwestern hospital) to $5,000,000 worth of construction equipment. Both standard and specially-built units can be leased.

Why has equipment leasing increased so rapidly?

Basically, equipment leasing has increased as a result of the steadily increasing cost of capital equipment. Leasing has historically been a means of permitting businessmen to function without owning everything they need to do business, since profits are made by *using* capital equipment, rather than *owning* it. Specific reasons for the current growth of equipment leasing are:

- Profit-producing equipment is put to work without capital investment. This is particularly important since working capital remains tight, despite the slight improvement resulting from inventory liquidation.
- To increase profits without increasing a company's own capital investment.
- To increase production without reducing liquidity of working capital.
- To reduce the risk of loss caused by rapid obsolescence of specialized equipment.
- To obtain equipment for limited-term use, either for special orders or for developmental or research work. This is particularly important where firms are involved in defense contract work.
- For manufacturers of industrial equipment, leasing programs have proved to be an effective method of increasing sales.

What are the advantages of leasing?

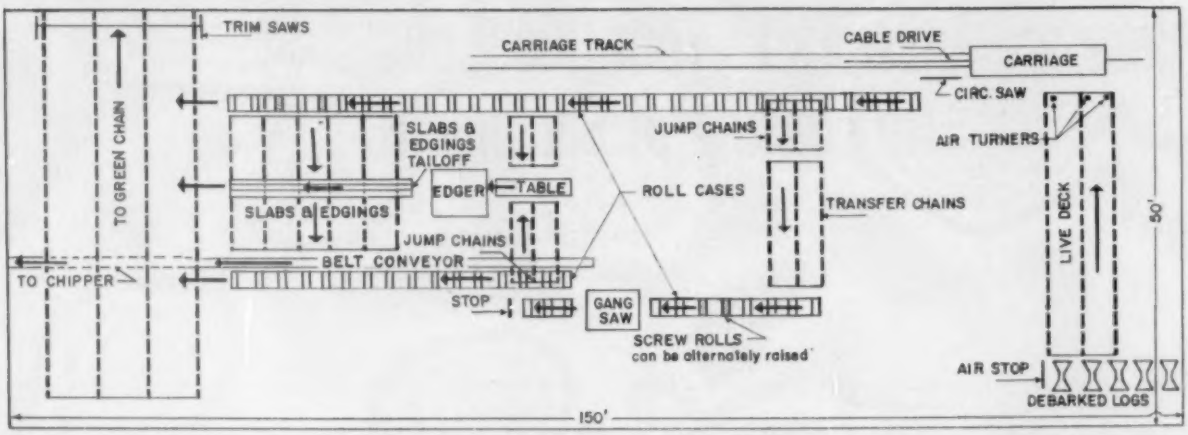
Leasing improves a company's financial situation.

- Leasing offers financing without dilution of ownership or control.
- In leasing, there is no necessity for a periodic clean-up of funds or a pledge of receivables.
- Leasing may offer certain tax-timing advantages in specific instances.
- Leasing makes for a cleaner balance sheet. Only the lease payments due within 12 months appear on the balance sheet, thus affecting the ratio of current assets to current debt very little. As a result, a company is able to use its established lines of credit for short-term borrowing without disturbance.

What types of companies lease equipment?

All types of companies in virtually every industry today lease equipment. They range in size from quite small companies (restaurants and motels, for example) to giant companies in the billion-dollar-a-year sales category. According to Nationwide Leasing Company's annual sur-

(Continued on page 66)



Floor and flow plan of the new automated Springle mill. Note clear, easy directional travel of lumber from circular saw to green chain, to gang saw direct to edger; also from the gang to edger and out to chain. Mill is housed in 50x150-foot Butler building. Production is 25,000 to 40,000 board feet per 8-hour shift.

Automated Mill Produces Lumber for $3 per M

Key unit is 28-inch gang. Increased accuracy results in greater recovery.

The highly automatic sawmill of the Springle Lumber Co. in Gainesville, Ga., manufactures lumber for $3 per thousand board feet. Average labor cost per thousand has been reduced by more than two-thirds, according to L. Bryan Springle, owner and general manager.

Primarily a framing mill, the Springle layout uses a sash gang behind a circular head saw to produce as much 2-inch material as possible. Cutting for the Springle concentration yard had been done for years by 10 small mills. While the company specializes in shortleaf yellow pine, it also handles some hardwood. The ratio is about 15% pine and 25% hardwood. The mill produces 35,000 to 40,000 bd. ft. per 8 hours. Total employment is 12 men, with 7 men in the sawmill proper.

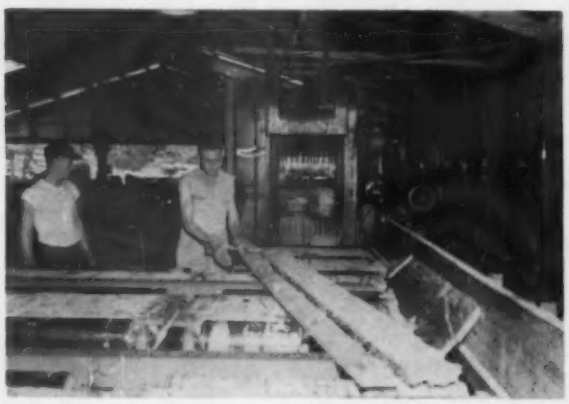
When Mr. Springle first conceived the idea and began investigating the possibility of putting in his own sawmill he presented his ideas and objectives to engineers of the Corley Manufacturing Co. Together they visited sawmill operations throughout the South. The present efficient setup resulted only after long sessions of planning and deliberation.

Production key at the Gainesville mill is the arrangement of the 14 saws in the 28-inch Linck gang. Mr. Springle and the Corley engineers came up with two patterns in the saw arrangement to cut 4/4 and 8/4 material. Here is the pattern, with numbers underneath the lines indicating saws to show the number of boards produced:

' ' ' ' ' ' ' ' ' ' ' ' ' ' (14 saws)

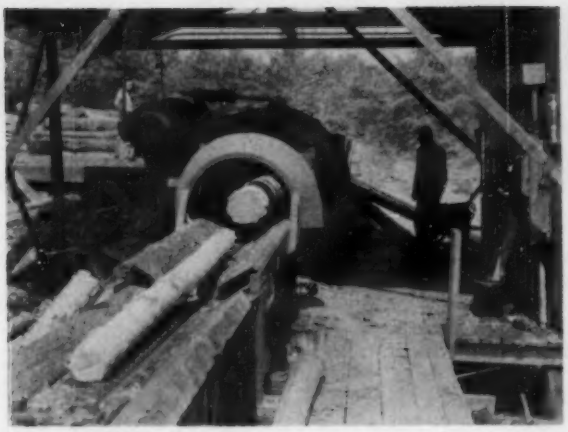
2 2 3 4 2 (13 boards–7-4/4 and 6-8/4)

More Lumber per log is one of the big advantages of the new setup. Rough lumber formerly had to be cut 1⅛" to finish to a ¾" board. The accuracy of the gang saw is such that it is now necessary to cut only 31/32" to finish out a ¾" board. The accuracy of the gang-sawn lumber not only means far less waste, but also causes much less strain on the planer. The process used at Springle has disproved one theory held by many lumbermen—that dimension cannot be sawn economically on a gang.



Offbear side on Linck gang. Lumber goes by jump chain to edger, left, or directly to green chain.

Automatic tailoff behind 4-saw Corley edger. Conveyor chains beneath tailoff remove slabs and edgings.



26-inch Cambio debarker is fed by a Soderhamn chain conveyor, type 261F. This offbear view of the debarker shows the "chair chain" supplying the mill deck.

Circular headrig cants logs. It has a Corley carriage and is powered with a 150-hp, V-belt Drive. Note that the sawyer is protected by a glass shield.

Culls, which had been running about 12% in the lumber from circular mills, are practically eliminated in the new operation. By single canting some smaller logs and then trimming off the single rough edge in the edger, wider boards are realized from many of the logs. The company reports that the gang saw also cuts boards better to grade and the lumber therefore brings a better price.

Logs are slabbed on one, two, three, or four sides on the circular head saw, being moved through by a Corley 3-block, riderless carriage. The off-bearer can either send material straight through to the edger, as in the case of boards, or, by means of jump chains and transfer chains send it across the mill floor to the sash gang. Slabs continue on a roll case to where an air-lift stop and spiral rolls remove them to refuse chains.

Slabs and boards resulting from the gang saw drop onto a roll case where they either go straight through to the cross transfer chains at the end of the mill or are transferred to the edger feed table by jump chains. A Corley automatic tailing device sends clear boards to the green chain and allows the edgings to join slabs on a common belt conveyor leading out to the chipper.

Chips are produced at the rate of about two cars per week for hardwoods and about six cars per week for pine. Hardwood chips go to the Chemical Products Co., at Rockwood, Tenn., and pine chips go to Bowaters (Hiawassee Land Co.) at Calhoun, Tenn. No screening is done as both purchasers prefer to do their own screening.

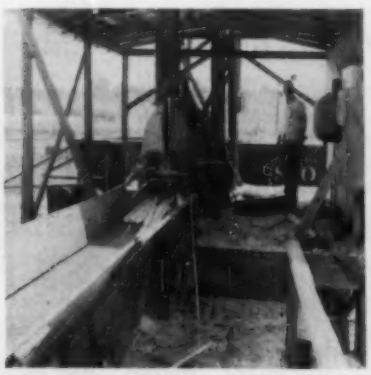
No incinerator is necessary with the kind of utilization acomplished at Springle Lumber Co. Many conservation-minded timber owners are offering their timber to the Springle mill after seeing it in operation, for they realize their timber will be utilized to the fullest degree.

Operating its own sawmill also makes more timber available for the company. It enables the company to buy small tracts of timber where formerly it was too expensive for the portable mills to set up to cut a small tract, or the owner objected to having a sawmill operating on his property.

Historically the Springle Lumber Co. goes back to 1949 when L. Bryan Springle formed his company in Gainesville. He had learned the lumber business from his father-in-law, P. E. Alford, in the same city. Mr. Springle is a former vice-president of the Southeastern Lumbermen's Club and active in industry affairs.

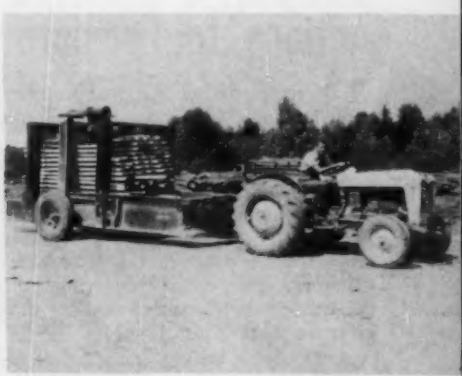
Equipment

BUTLER all-steel building; FOSHEE lumber carrier; HYSTER forklift; FORD tractor; FORD truck; CAMBIO debarker; SODERMAN conveyor, chipper; VOLLMER-WERKE saw grinder; CORLEY carriage, edger, automatic tail-off, trimmer; LINCK gang; QUINCY air-compressor; GE motor; WAGNER motor.



Soderhamn 48-inch chipper is separately housed. Mill produces total of 8 cars of chips a week.

Head filed Tom Pearson puts gang saw blade in shape on Vollmer-Werke grinder. It automatically cycles.



Yard handling of lumber is with Ford model 820 tractor and a Foshee "Special" lumber carrier. ■■

Wood Promotion Budget Upped to expand 1960 activities in

• advertising • merchandising • product publicity • technical promotion.

The 35-man National Wood Promotion Committee has approved a 1960 budget of $1,363,424 for the National Wood Promotion Program, an increase of 21% over the $1,130,000 allocated for the first year of the program.

At the same time, the National Wood Promotion Committee called on the 17 member associations of the National Lumber Manufacturers Association to work for "full industry support" of the NWPP.

In other actions, the committee:

Instructed the program's advertising-merchandising subcommittee to study "positive" ways of offsetting derogatory statements by wood's competitors.

Increased membership of the National Wood Promotion committee from 35 to 37 and membership of the program's intra-industry cooperation subcommittee from five to nine.

A. B. Hood, vice president-general manager of the Ralph L. Smith Lumber Co., Anderson, Calif., was reelected chairman of the National Wood Promotion committee. Eliot Jenkins of Eugene, Ore., was reelected vice chairman.

10-Year Program. A highlight of the meeting, attended by more than 300 industry principals, was a colorful hour-long presentation of a proposed 10-year research-advertising-trade promotion program designed to put wood ahead of its competitors in the race for new markets of the 1960's.

The program calls for new or expanded marketing activities by the lumber industry in five broad areas:

1. An enlarged technical promotion field staff to make sure that all buyers and specifiers of building materials are completely up-to-date on the latest advances in wood technology.

2. A progressive industry program of product and market research to find new ways of building with wood and new products utilizing wood.

3. The development and total industry use of a special "salesmark" to certify the quality of wood products manufactured by subscribers to the program.

4. A powerful multi-media advertising program, including use of network television and top consumer and trade magazines, to create greater public awareness of the many attributes and quality of wood and associate these qualities with the proposed industry "salesmark."

5. A complete merchandising and product publicity program to tie all these activities together and carry wood's new mark and advantages to all builders, wholesalers and retailers.

In recommending a 1960 National Wood Promotion Program budget of $1,363,424, the NWPP's steering committee urged the full National Wood Promotion committee to give special consideration to enlarging present technical promotion field activities, "to secure the maximum measure of benefit from the advertising, merchandising and other activities of the National Wood Promotion effort, thus bringing about a well-rounded program in the best interests of the lumber industry."

Earlier, chairmen of the various subcommittees responsible for different phases of the program reported on the results of 1959 activities and explained projects to be carried out in 1960.

Advertising - merchandising. Jack Fairhurst of the Fairhurst Mill Co., Eureka, Calif., chairman of the advertising-merchandising subcommittee, said the 1960 budget will provide for accelerated advertising in consumer and trade publications. This will consist of eight four-color advertisements in LIFE, including two two-page spreads; six two-page black-and-white spreads on alternating months in ARCHITECTURAL RECORD, ARCHITECTURAL FORUM and PROGRESSIVE ARCHITECTURE; spreads on alternating months in the NAHB JOURNAL OF HOME BUILDING, PRACTICAL BUILDER, AMERICAN BUILDER and HOUSE & HOME: three two-page spreads in NATION'S SCHOOLS AND SCHOOL MANAGEMENT.

Reviewing first-year activities, Fairhurst reported that NLMA had initiated and completed more than 150 individual publicity projects with about 80% placement in newspapers, magazines and other media. Among new projects undertaken during recent months, he said, were a TV film in cooperation with the National Asso-

Actions to Promote Grade Marking and Protect Industry Against

Directors of the National Lumber Manufacturers Association took these steps at the annual meeting in Washington, D. C.

• Urged the Federal Housing Administration and private lending agencies to require grade marking of all framing lumber used in home construction backed by FHA and other mortgage guarantees. The NLMA recommendation supported a later announcement by FHA Commissioner Julian Zimmerman that all framing lumber used in FHA-insured housing must be grade marked, effective next April 1.

• Directed NLMA staff members to "take all steps possible" to educate buyers, users and specifiers of the characteristics and identification of various lumber grades.

• Established a special NLMA committee to study possible simplification and standardization of grade designations. Each industry grading agency will be invited to nominate three representatives to serve on the committee, to report its findings to NLMA directors next November.

NLMA board members also acted to strengthen the domestic lumber industry against foreign competition.

In this connection, the board voted to assist domestic producers of ponderosa pine mouldings in their efforts to obtain relief from Mexican-made imports; directed NLMA staff members to give domestic hardwood plywood manufacturers "all practical assistance" in their fight against low-wage imports from Japan, and instructed the NLMA staff to investigate the possibility of an embargo or other remedy to curb shipments of American walnut logs to processors in Italy, Germany, Japan and other foreign countries.

Bahr McGowin Hood McHugh Ingram Doyle

Thomas J. McHugh is new president

of the National Lumber Manufacturers Association. Mr. McHugh, president of Atlantic Lumber Co., Boston, Mass., succeeds Robert M. Ingram, president-general manager of E. C. Miller Cedar Lumber Co., Aberdeen, Wash. Mr. Ingram was elected NLMA board chairman, succeeding N. Floyd McGowin, president of the W. T. Smith Lumber Co., Chapman, Alabama, who becomes chairman of the association's policy committee.

A. B. Hood, vice president-general manager of the Ralph L. Smith Lumber Co., Anderson, Calif., was elected first vice-president of the national lumber group. Elected regional vice presidents were:

J. D. Bronson of the Cascade Lumber Co., Yakima, Wash., president of the Western Pine Association, Portland, Ore.

Eliot Jenkins of Eugene, Ore., president of the West Coast Lumbermen's Association, Portland.

E. C. Gates, president-general manager of the Fordyce Lumber Co., Fordyce, Ark., and president of the Southern Pine Association, New Orleans.

S. M. Nickey, Jr., vice president-general manager of Nickey Brothers, Inc., Memphis, Tennessee, and president of Southern Hardwood Producers, Inc., Memphis.

Re-elected executive vice president of NLMA was Mortimer B. Doyle of Washington, D. C. Henry Bahr of Washington, D. C., NLMA general counsel, was re-elected secretary.

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ciation of Manufacturers, "Environment for Learning;" a 16-mm sound-color motion picture on the use of wood in school construction, to be shown to architects and school planners, and a "Blueprint for Better Schools" program featuring scale models and working drawings of a wood "idea" school.

Technical promotion. E. C. Rettig of Potlatch Forests, Inc., Lewiston, Idaho, chairman of the Technical Promotion Subcommittee, disclosed that during 1959 technical promotion field men exceeded by nearly 80% their goal of 5000 personal contacts with engineers, architects, designers, specifiers and builders. Rettig also discussed the effectiveness of recent building code work, especially in suburban areas of rapid growth, and said progress has been made in developing data on the heating and air conditioning costs of wood-frame versus masonry construction.

Tests will begin shortly, he said, on the comparative fire resistance of heavy timber and steel roofing systems. A four-year test of a new alkyd resin exterior house paint, just completed, shows this type of paint to be definitely superior to standard federal specification paint, and the results will be used by NLMA staff members in an effort to get wood construction accepted for permanent military housing, Mr. Rettig stated.

Mr. Rettig also said that work is underway or has been completed on the following technical publications: a 44-page booklet on the proper use of wood in home construction, "Manual for House Framing;" an eight-page design booklet, "Random Length Wood Decking," for architects and engineers; and a 16-page updated booklet on "Design of Wood Formwork for Concrete Structures."

Other technical material now in preparation or recently completed covers wood plank-and-beam construction, wood versus concrete floors, updating of the "National Design Specification for Stress-Grade Lumber and its Fastenings," a classroom text on this publication, material on decay and termites, and instructions on how to obtain lower fire insurance rates on wood construction.

New activities, Mr. Rettig revealed, will include a booklet on the use of wood in churches, "Environment for Worship;" a publication on the advantages of heavy timber construction; a series of leaflets on why wood is best for various building components; a wood school exhibit; various

(Continued on page 69)

Foreign Competition

On the forestry front, the association's governing body called on federal agencies to put their management of commercial forest lands on an "income-producing and pay-as-you-go basis." The NLMA board also urged the Forest Industries Council, policy coordinating agency of the lumber, pulp and paper industries, to seek elimination of waste and duplication in federal aid programs for small woodlot owners.

In other resolutions, NLMA directors:

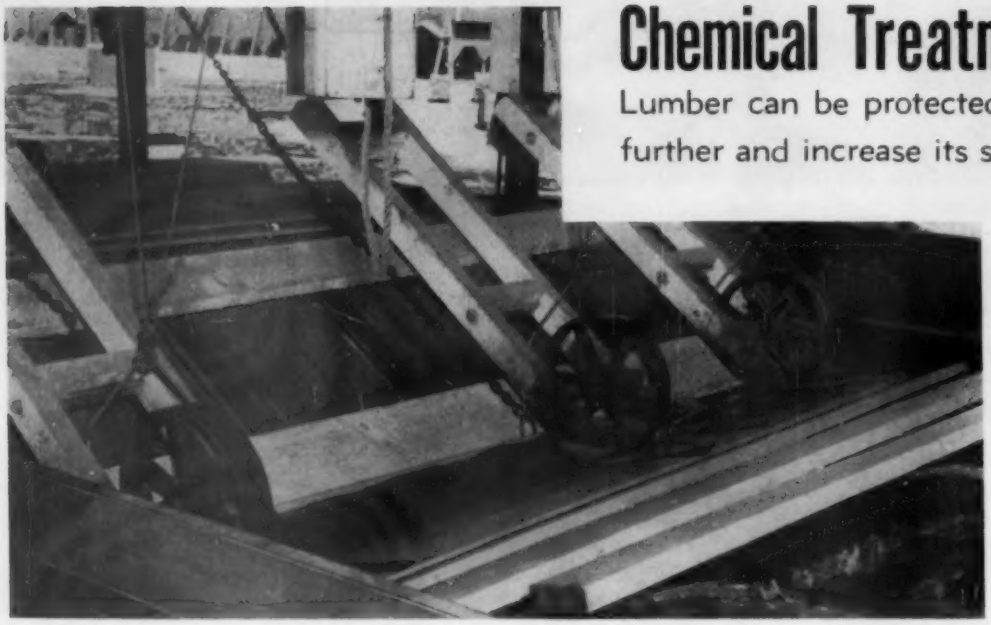
• Ordered expansion of NLMA's National Affairs committee to increase the effectiveness of the association's legislative programs.

• Asked NLMA's 17 federated associations to provide the U. S. Forest Products Laboratory with detailed information on the market potential for glues in the lumber industry.

• Called for immediate preparation of a handbook or design manual on industrial use of lumber. Industrial uses now account for about one-third of total lumber output and a design manual for this market would provide additional opportunities for the sale of economy-grade softwoods and hardwoods, the resolution pointed out.

• Ordered an intensification of NLMA efforts to publicize career opportunities in the private forest industries. This will include cooperation between NLMA and the Forest Products Research Society for local distribution of the booklet, "Opportunities Unlimited," and participation by NLMA staff members and industry principals in school lectures and seminars on career opportunities.

• Called for legislation to eliminate false labeling and false advertising of imitation wood products and urged that Federal Trade Commission powers be expanded to give the agency jurisdiction over "deceptive sale of such products at the retail level." ■■



Chemical Treatment Can

Lumber can be protected against stain further and increase its stability. Costs

A Better End Product Starts with Handling

So far as the timber itself is concerned, there is more and more second growth every year and that means more sapwood with its higher moisture content, and proclivity to sap stain, mold, and decay. Since sapwood is more susceptible to fungus or insect attack, some positive steps must be taken if its quality is to be at least equal to all-heart lumber. Fortunately, sapwood can be treated more readily than heartwood, and once it is properly treated, it is a more durable product. Let us first examine more specifically the areas in which real improvements can be made.

Beginning with the cutting of saw logs, is there any problem and need for improvement? There is of course little problem if the log supply is "hot," that is, promptly delivered to the mill and sawn immediately. Naturally, this is impossible in most cases, and storage in the log ponds or "cold decks" is practiced by most mills. Storage in log ponds has been satisfactory for the most part, although in some areas, the invasion of certain bacteria causes some logs to become undesirable "sinker stock." This is a short way of saying that the wood is much more permeable to liquids than is normal wood. Control of this phenomenon is now being studied, and a chemical treatment may be the answer.

Cold decks for stored logs often result in excessive checking and some degrade due to sap stain. Some mills attempt to keep the logs wet with a water spray, and others find it better to spray the ends of the logs with an effective wax emulsion of mills for spraying lumber.

Methods to Prevent Stain, Checking and Protect Against Water

Sap stain chemicals. Beginning in the Southern Pine area in the early 1900's with the old "Soda Dip," constant improvements have been made to control costly sap stain and mold, caused by fungi. In many pine lumber grades, sap stain is a defect which represents a loss of $2 to $20 per M board feet. When such losses can be prevented by modern chemical treatments at a cost of only about 20c M board feet it is obvious why their use has become so wide-spread.

In view of the increasing proportion of stain-susceptible sapwood in Douglas fir, the fir industry may now have reached the point where it should make sap stain a defect in the upper grades, and help to force the elimination of unsightly stain from the retailers yards. No builder or consumer likes to use black, moldy lumber. Many consumers associate stain with an early stage of decay, and may often be correct in this surmise.

There is room also for a great deal of improvement in the application of such chemicals to fir lumber. At present, jerry-built spray rigs prevail. Seldom do they work well, owing both to poor equipment and faulty supervision. Perhaps the time has come when well-constructed dip vats, such as are used by the pine mills, should be installed and used by the fir mills. After all, a cost of 20c per M board feet is cheap insurance against this source of trouble.

Brown stain in sugar pine. Thanks to the work of the Western Pine Association laboratory and cooperative development by the chemical industry, the problem of controlling Brown Stain in sugar pine appears now to be solved. Unlike sap stain, it is caused by certain enzymes which can now be inactivated by a short dip in buffered sodium azide solution at a cost of about 12c per M board feet. This treatment is available alone or in combination with the sap stain control chemicals, and in the year and one-half in which it has been used, excellent results have been obtained.

In the past, losses due to brown stain have ranged from about $4 to $30 per M board feet, and since control can now be obtained at a cost of less than 40c per M, it seems likely that most millmen will take this opportunity to up-grade their sugar pine lumber.

Pay Big Dividends for the Lumber Industry

and end-checking. Treating with water-repellent preservatives will protect it of these treatments are low . . . possible gains are big.

This scientific break-through on control of enzymic stains in sugar pine points the way to success in other species, notably redwood, red oak, persimmon and other hardwoods. Such knowledge must be used by lumbermen if they are to maximize the appeal of their product in the market place.

Wax emulsion end coatings. The control of end-checking in lumber has been a problem for many years, since it has been a source of loss in both air-dried and kiln-dried stock. Sporadic attempts have been made over the years to develop effective end-coatings. With the fairly recent development of really good and inexpensive wax emulsions the way is now open for the millman to rid his operation of this source of loss, at least in air-dried stock. It appears that the pine operator has no serious problem in stock under 3 inches in thickness, but for thicker stock can use good end-coatings profitably. On the other hand, both fir and redwood in all dimensions are subject to rapid checking. With these species much can be gained by properly applying an effective end-coating.

The lumber associations have sponsored, or worked in this field over the years, and the most recent evaluation of end-coatings was made by the California Redwood Association. Their Interim Report C set forth these conclusions: "These tests indicate the use of wax emulsion end sealers is a low cost means of reducing the lumber end-checking which occurs during air-seasoning. Use of an end sealer on 1x10-inch redwood lumber, 10x14-foot lengths and valued at $180 per mbf, can result in a net savings of $6.46 per mbf."

Printing and waxing at trimmers. Another recent development is the printer-waxer installed at the dry trimmer saws. This machine prints a brand name on the ends of dry stock and then applies hot, melted wax.

It is thus both a merchandising aid, and a means of effectively controlling end-checking which may develop during transport, storage, and use. The cost of this operation is so low, and the results so satisfactory, that it seems certain to be adopted by all lumbermen who have any feel at all for merchandising a quality product.

Use of Water-Repellent Preservatives. Owing to the great success of water-repellent preservatives in the millwork industry, which has been thus enabled to come back strongly after losing much ground to competitive materials, there now is a rapidly-growing interest in these chemical treatments, and the realization that other good wood products can be made even better and compete more successfully in the market place.

A good water-repellent preservative performs the dual function of giving a wood product some degree of dimensional stability, that is, resistance to shrinking, swelling, warping, and checking; plus protection from early infection by decay and stain fungi. Also, tests at the Forest Products Laboratory and other places have shown that such treatments improve the adhesion of paint. In other words, this type of treatment improves the performance of wood, and will surely come into wider use once lumber and woodwork manufacturers realize its value.

Already the use of water-repellent preservatives is spreading to other products such as exterior siding of fir, hemlock, and redwood. One large mill is dipping all its lumber in a water-repellent preservative only for the purpose of protecting the lumber through transport and storage to final use in a structure. In the past, much trouble had been experienced by leaving the lumber unprotected from heavy sudden rains and spells of hot sunny weather.

So far, the application of these materials has involved only a 1 to 3 minute dip, or at best a so-called quick vacuum treatment, with relatively low retentions and penetration. In many cases, this is all the protection needed to do the job intended, but still better treament is on the way. Already for certain of the military requirements of lumber products, for overseas shipment particularly treatment with a standard water-repellent preservative has been specified, resulting in much higher retentions and deeper penetration.

Normally a retention of 6 pounds per cubic foot of a water-repellent preservative meeting Federal Specification TTW-572 has been required. Since practically all of this pressure-treated lumber is used above ground where the decay and termite hazard is less severe, it would seem that a 4 pound per cubic foot retention should be adequate for most uses.

At a cost of about $16 to $20 per M board feet, it would appear that for much of the lumber produced today, this treatment could well be used to real advantage. After all, properly-treated sapwood is actually a far more durable and satisfactory product than untreated heartwood, and as the proportion of sapwood increases, this surely would be one excellent way of strengthening wood's position in the building material market place.

Industry Must Improve its Products or Lose its Markets

There is no reason why good lumber should not be made better and better, and keep and even strengthen its place in the building material field. To accomplish this, the lumberman must be progress-minded, ready to test and adopt any development which promises to make his product better. Right now the statistics are running against him; the per capita consumption of wood is dropping, and the forest products industries generally are losing ground when compared in the over-all against certain other industries, where "high" Research and Development costs are standard. Where Research in "lumber and wood products" is now running at less than 0.1% of product value, in all industries it is about 1.1%, and in some direct competitors of forest products as much as 5%.

In the light of these facts, does it not behoove those engaged in "lumber and wood products" to take advantage of know-how and improvements developed by others to upgrade their products? ■■

Job Savers

Simplified veneer movement to dryer feeder . . . easier cleaning of log pond . . . increased production of plywood shims.

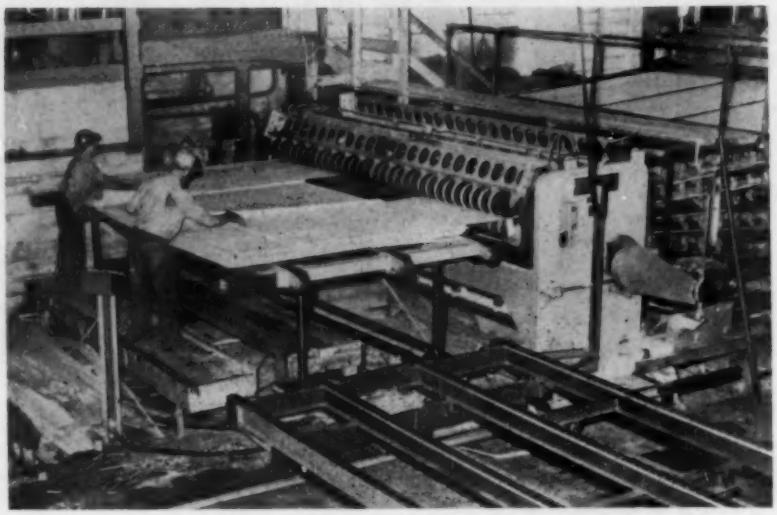
Veneer Moves Quickly To Dryer Feeder

Push-button control live storage systems assure a steady flow of veneer to dryer feeders at the Weyerhaeuser Co.'s Longview, Wash., plant. The electric motor-driven chains, all reversible, are controlled by the feeder operators from stations at each dryer. Movable chain carrier on wheels are also controlled from the same point.

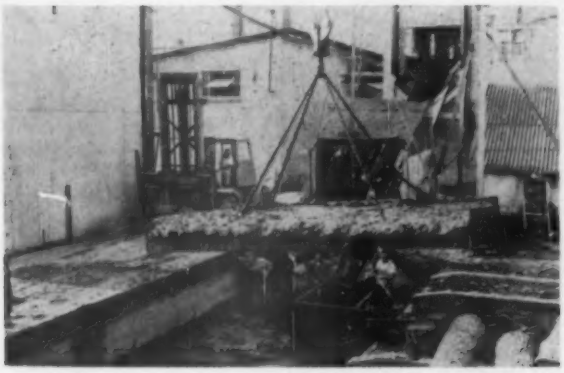
In a matter of seconds a fresh supply of stacked veneer can be conveyed into position ready to feed into the dryer.

The manual control stand is located behind the feeding platform.

The platform from which the men work is lowered and raised by screw feed so that veneer is always at best working weight. The new dryer feeders have reduced damage and splitting on the 48-inch veneer.



The Sweed feeders, transfers and auxiliary equipment are from Jeddeloh Brothers, Gold Hill, Ore. Feeder drives are by Link-Belt. ■■



False Bottom Pond Easily Cleaned

It used to take a half-day to clean the concrete log pond of Chester B. Stem, Inc., New Albany, Ind.

To solve the time-consuming job, the company built a false bottom in sections made up of I-beams and heavy sheet iron. There are lifted out by the log derrick and put on a 7½-ton Clark lift truck. The sections are then driven out in a field and dumped and cleaned. The whole operation is quickly done and consequently is also done more frequently.

Richard K. Stem, vice-president says: "It was the messiest job we had in the place and we are pleased to have it solved." ■■

Gang Shim Saw Speeds Operation

A shop-built saw at Northern California Plywood, Inc., Crescent, Calif., cuts 70 2-inch strips for the Raimann machines in one cut. It is a 38x78-inch unit with ¼-inch steel plate feed table, three sets of powered feed rolls and a 7-saw arbor.

With space setters on the saws, the same machine cuts ¾-inch stock for the Davis patch machine.

The unit replaces production formerly done on a skinner saw and one man working at this unit, on an infrequent basis, turns out all the strips and patch material needed during the shift. ■■

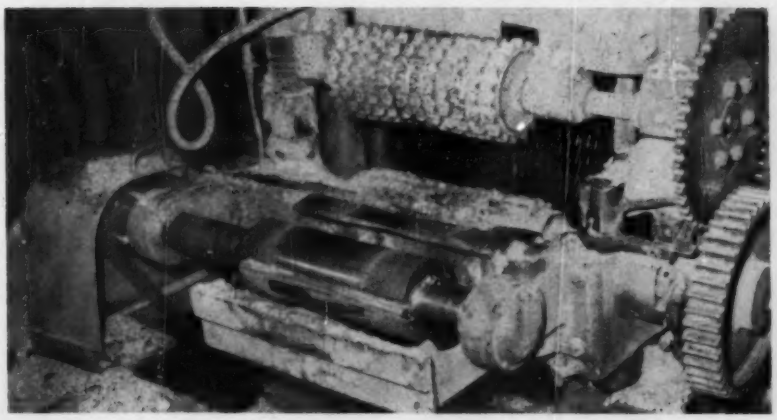
More Safety

Automatic stopping device for carriage . . . non-skid, spot-painted floors . . . safety lift truck operation . . . quick stops for the chipper.

A safety precaution for the carriage is provided by this rig at Superior Building Co., Columbia Falls, Mont. The Oilgear hydraulic carriage feed drive unit in the foreground is actuated by the sawyer through the linked controls (arrow). The large horizontal pipe leads to the sawyer's cage; the vertical pipe is connected to the control on the drive unit with an eccentric. If the sawyer loses control, the connection will by gravity return automatically to the position shown here, which is the lowest it can go, and stop the feed drive.

Slipping is eliminated in U. S. Plywood Corp.'s Redding, Calif., plant by applying Sonnegrip Non-skid safety paint in a random pattern with each spot roughly four to five inches in diameter. The random application saves on cost, proves effective.

Safe lift truck operation is encouraged by a Fork Lift Roadeo conducted by B.C. Forest Products, Ltd. for personnel from its plywood plant in Victoria, B. C., and veneer plant at Youbou. Drivers weave through a series of obstacles in an exacting test of their ability. Points are scored on a demerit system at each obstacle and the final score is modified according to average driving time of all contestants.



Safer operation of the chipper at Forest Products Co., Kalispell, Mont., results from the installation of a Dynac brake on the chipper attached to the infeed side of the Mill Engineering 34-inch round log gang. The chipper can now be stopped completely in 10 seconds vs. 4 minutes with the previous use of the bar. The chipper turns at 3600 rpm. The braking device takes this torque and converts it electrically into stopping power.

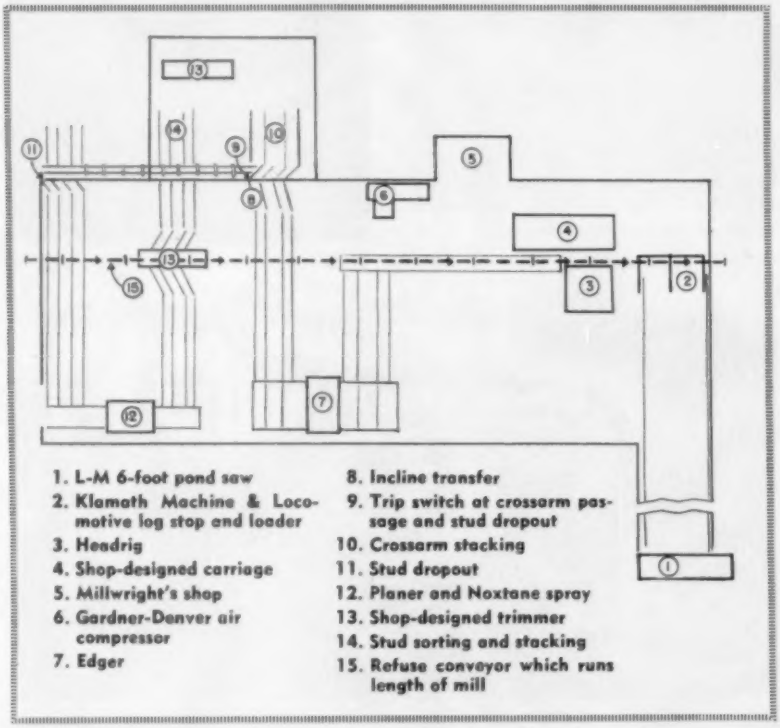
■■

FRONT END OF MILL shows Klamath Machine & Locomotive Works double circular headrig. The carriage has air dogs and Sel-Set set works.

VIEW TOWARD EDGER shows studs outbound and planed studs outbound in lower foreground. The latter have just been sprayed.

Mill cuts

Studs and Crossarms and capitalizes on adjustable device on edger.



1. L-M 6-foot pond saw
2. Klamath Machine & Locomotive log stop and loader
3. Headrig
4. Shop-designed carriage
5. Millwright's shop
6. Gardner-Denver air compressor
7. Edger
8. Incline transfer
9. Trip switch at crossarm passage and stud dropout
10. Crossarm stacking
11. Stud dropout
12. Planer and Noxtane spray
13. Shop-designed trimmer
14. Stud sorting and stacking
15. Refuse conveyor which runs length of mill

THE RIVERSIDE LUMBER CO. at Piercy, Calif., is producing crossarms and studs at the rate of 85 M per shift, cutting from logs coming half from Riverside's own lands and half from direct purchase sources.

President and general manager T. M. Dimmick has 20 men in his operation, including a man on the yard and a night watchman. The mill cuts all Douglas fir and is located just a short distance from a redwood mill also owned by Mr. Dimmick.

The company's neatly strapped and and end-sealed studs are distributed in local areas and all the way to Phoenix, Ariz. Crossarms, in the main, go to the Eureka Crossarm Co., Eureka, Calif.

Stock coming from the Klamath Machine & Locomotive Works double circular, 54" headrig follows a back-and-forth flow across the narrow dimension of the all-steel building.

Crossarms discharged from the 8"x72" Klamath Machine & Locomotive Works gang edger move across the mill and directly out. Studs travel a complete 360-degree path before emerging alonside the crossarm sorting chain.

Both products are borne up a sharply inclined lift after being transferred from the edger offbear rolls. High point on the lift is just inside the main part of the building. Immediately outside, at the high level, a conveyor catches studs. Crossarms, activating a trip switch at the peak of

FINISH SIDE OF MILL. 1. feed chains for putting rough stock to planer; 2. transfer chains which shift studs from conveyor to vertical dropout; 3. studs being strapped, awaiting fork lift; 4. stacking stud packages by grade; 5. second trimmer. Some crossarms stock is partially visible on transfer chain directly behind the men.

TRIP SWITCH, shown in circle, puts slides into place to move crossarm over stud conveyor and into the vertical dropout.

lift, are moved across the conveyor and drop directly onto the sorting chain.

Studs are borne along the high-level conveyor to the extreme end of the mill from the headrig and then are shifted by transfer chains to a vertical dropout. From this point they are transferred to the Stetson Ross 7-A1 planer. Following a Noxtane spraying, the studs make the final turn of the 360-degree pattern and move to the shop-built trimmer and thence to the outer shed and the sorting chain.

Surfaced stock is trimmed to 96″ exact and graded. The 6′, 7′, No. 4 and clear stock is pulled. The No. 3 and better studs go to the next trimmer for precision trim.

Mr. Dimmick installed a shifting device on the edger in order to recover as much as possible from each piece of wood going through it. There are three settings of saws: the first group mounts four saws and is permanently set at 3⅞″. The second set of saws, movable, may be set a 3⅞″ or at 4⅞″. The third portion mounts 13 saws set at 1-13/16″. Depending upon the cant going through, he may get all crossarm stock or all 2″x4″s or some crossarms and some2″x4″s.

For handling packages of studs and for loading trucks, Mr. Dimmick uses two lift trucks, one Hyster and a Gerlinger. Acme steel strapping is used.

Alvin Haskinen is sawmill superintendent. Head filer is Everett Boozer; Henry Frank is master mechanic. ■■

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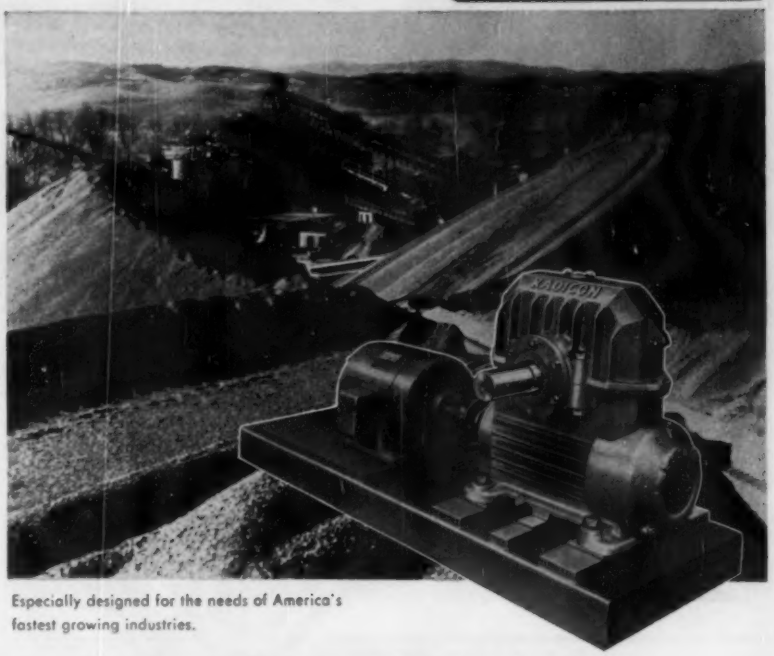

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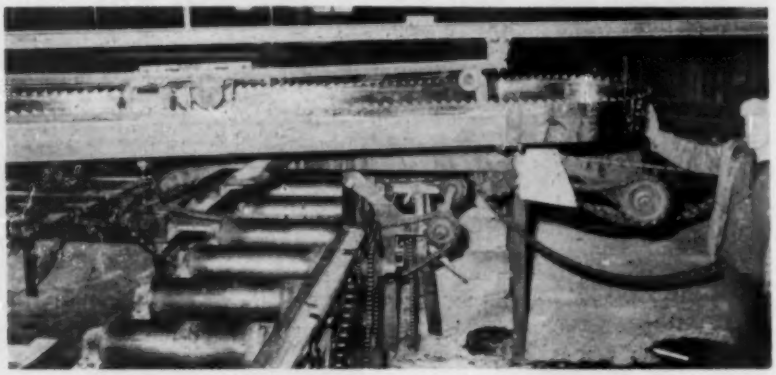
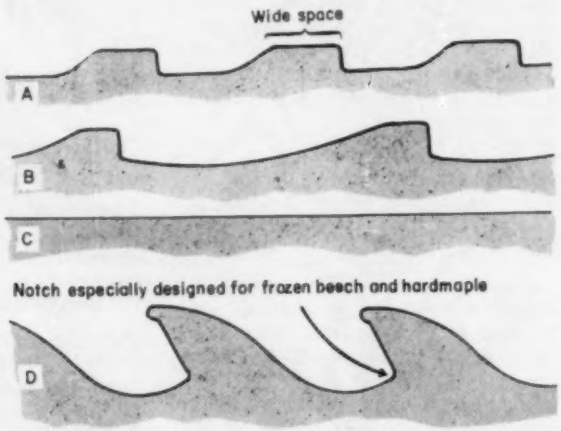
Saw Filer's Room

Trolley safely moves sharpened saws to position in mill. Straight-back saws economically converted to sliver tooth.



SAFE TRANSPORT of saws from the filing through the mill is achieved at American Timber Co., Olney, Mont., with an overhead trolley system devised by Howard Brist, sawmill superintendent. To raise the saw up to the overhead trolley, a 1-hp electric motor drives small cables on pulleys (left). The saw then can be moved through the mill (photo at right) over production facilities without need to shutdown the mill. In a crowded mill, this type of saw transportation materially reduces possibility of accidents. The trolley is made of 3-inch steel I-beams with a Link-Belt wheel assembly. The electric motor travels over the trolley. A plug-in cord can be used at either end of the track. ■■



BAND CHANGEOVER from straight-back to sliver-tooth saws was solved for Endeavor Lumber Co., Endeavor, Pa., with a rig developed by C. D. Fauzey, head filer. At the time the change was made, the company had three straight-back saws on hand. These could either have been traded in on straight-backed saws, or they could have been converted to the sliver-tooth pattern. Either alternative would have been expensive.

Mr. Fauzey solved the problem by putting an attachment of his own design on the Hanchett grinder (at left above) which enabled him to turn the saw over and notch the back to suit himself. The attachment is an extension of the pusher arm designed to catch the teeth and advance the saw in the inverted position.

By converting the saw himself he could also pattern the teeth to his own design. For one thing, Mr. Fauzey left a much wider space at the straight end (see A at right above) on which to apply the gauge in subsequent treatments of the blade. B is a factory silver-tooth sawback, C is straight back.

Mr. Fauzey also has a different method of grinding teeth for sawing frozen timber (see D at right). Teeth are ground so that the advance edge recedes into a deep notch designed especially for frozen beech and hard maple. Sawdust gathers in the apex of this notch and knocks off the frozen sawdust while the saw is cutting. This refinement is especially important in this northwestern Pennsylvania mill where much of this type material goes through the mill in the winter. ■■

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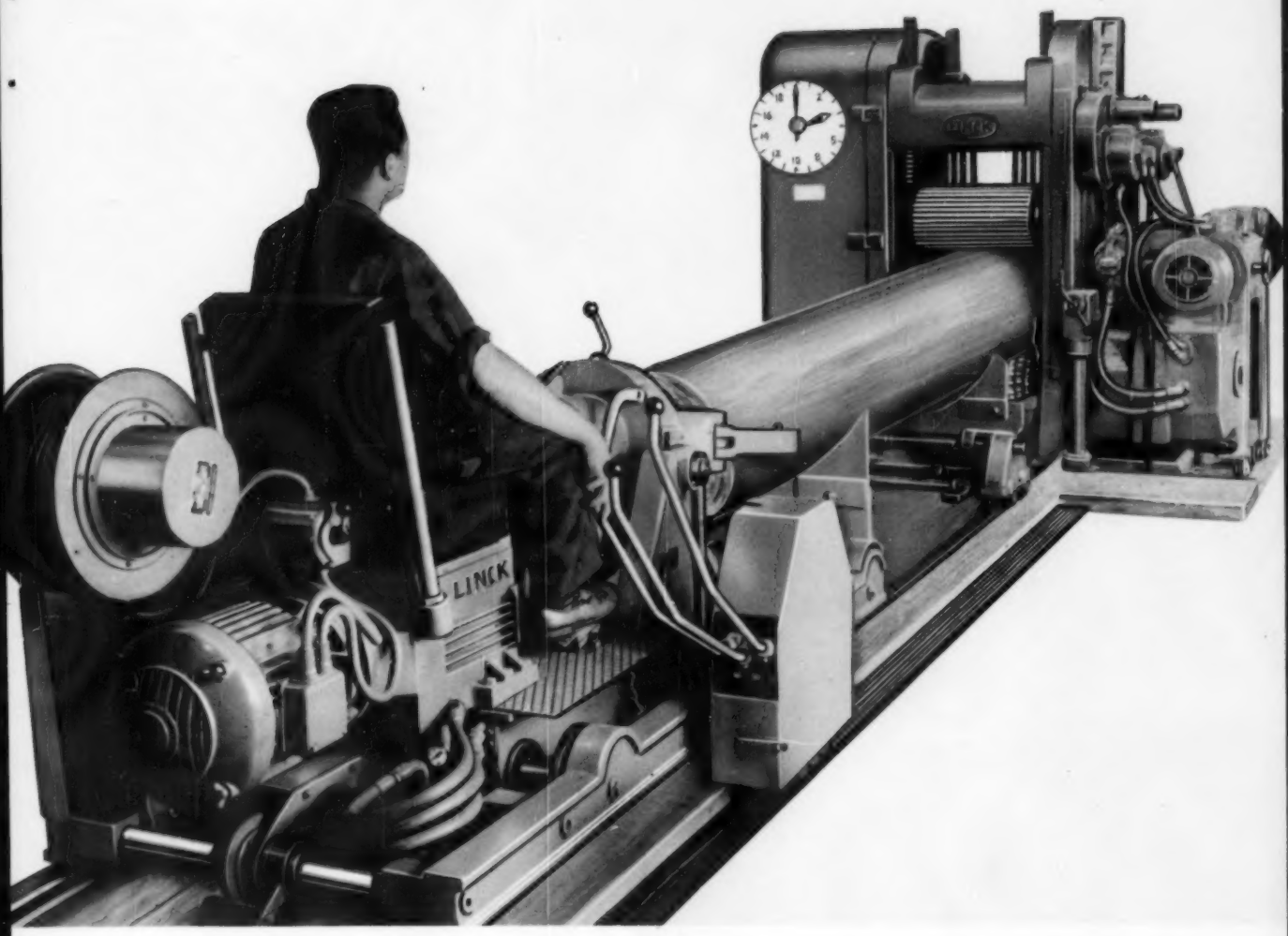

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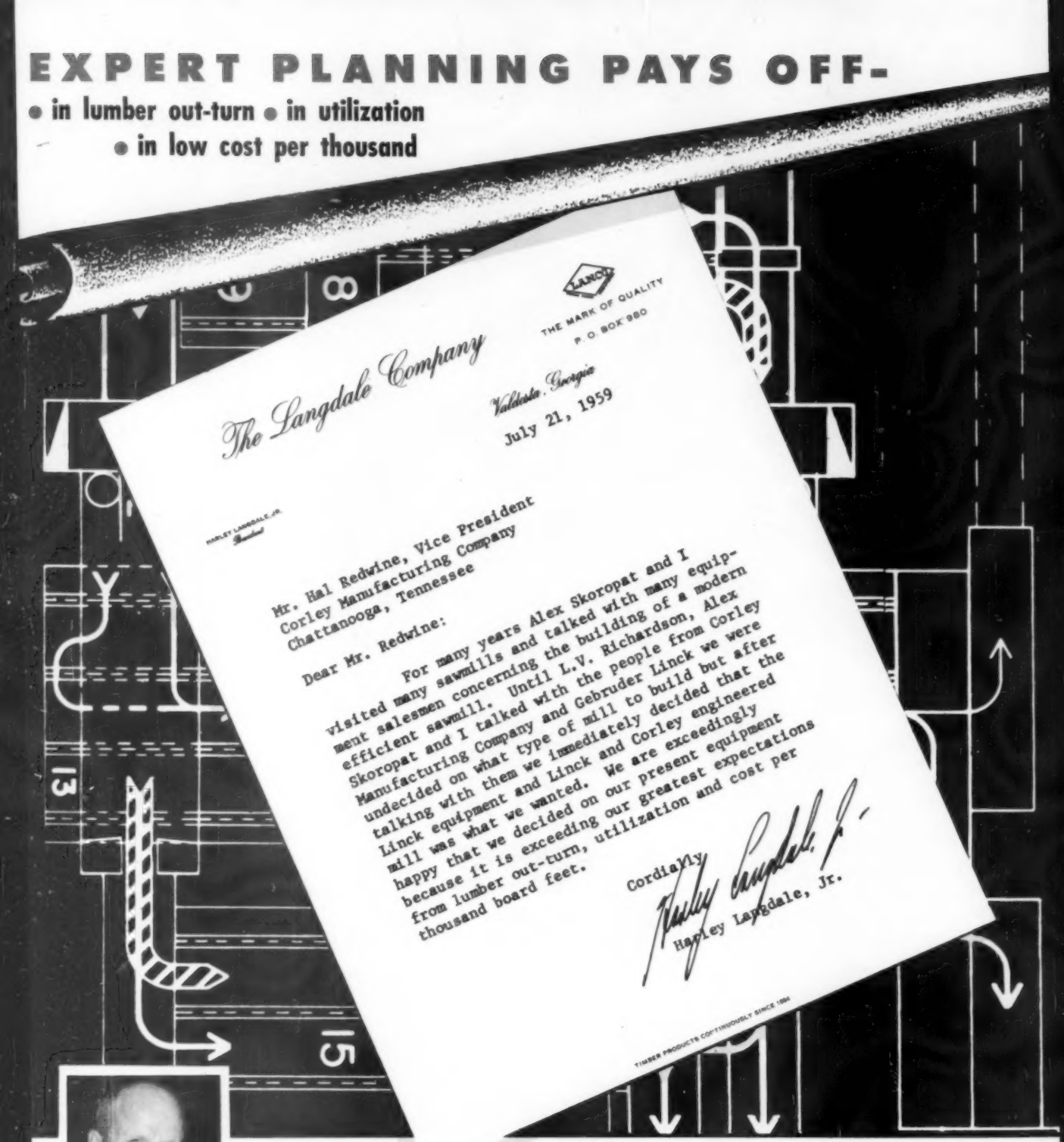

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P. O. BOX 990
Valdosta, Georgia

July 21, 1959

HARLEY LANGDALE, JR.
President

Mr. Hal Redwine, Vice President
Corley Manufacturing Company
Chattanooga, Tennessee

Dear Mr. Redwine:

For many years Alex Skoropat and I visited many sawmills and talked with many equipment salesmen concerning the building of a modern efficient sawmill. Until L.V. Richardson, Alex Skoropat and I talked with the people from Corley Manufacturing Company and Gebruder Linck we were undecided on what type of mill to build but after talking with them we immediately decided that the Linck equipment and Linck and Corley engineered mill was what we wanted. We are exceedingly happy that we decided on our present equipment because it is exceeding our greatest expectations from lumber out-turn, utilization and cost per thousand board feet.

Cordially,

Harley Langdale, Jr.

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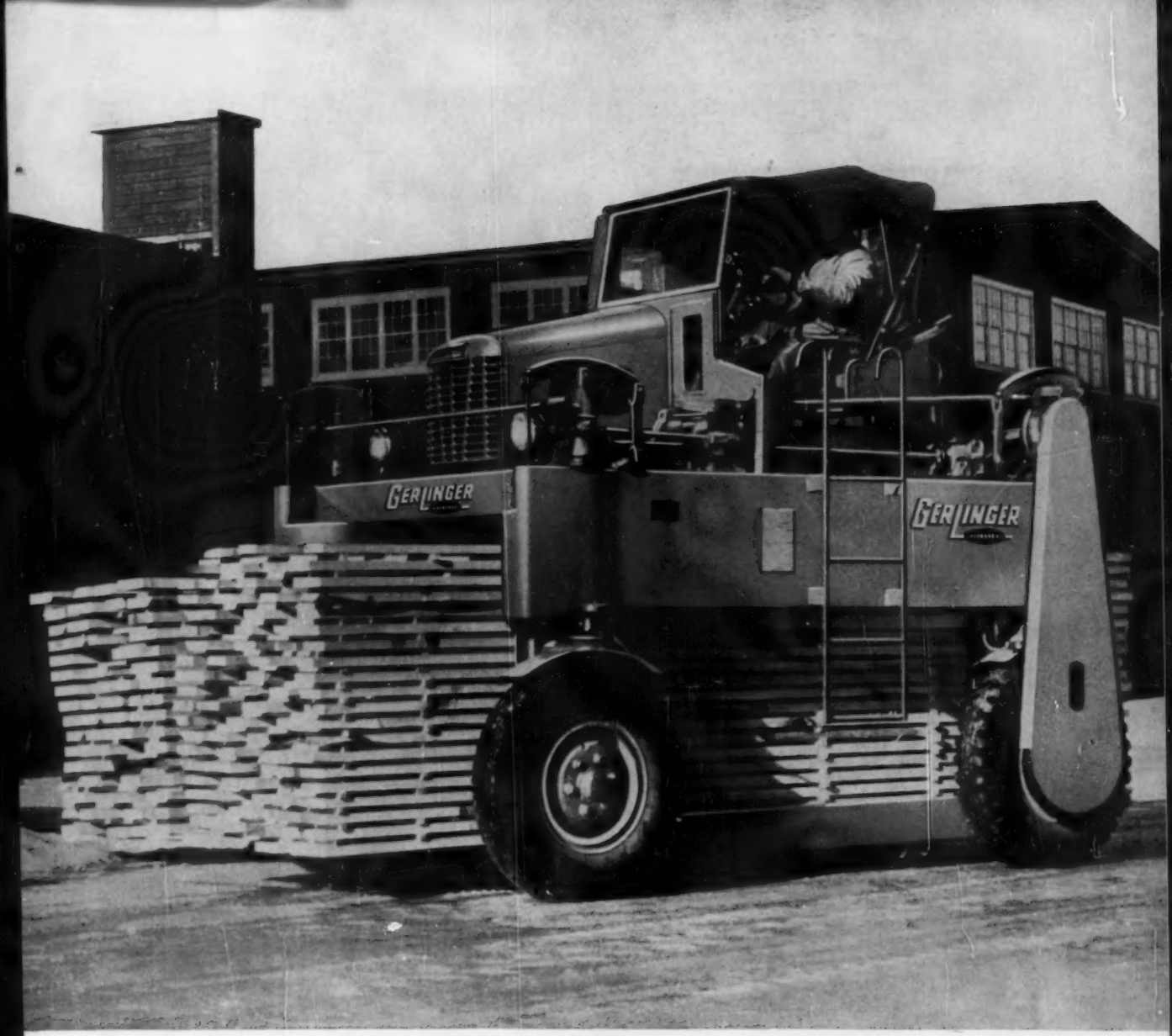

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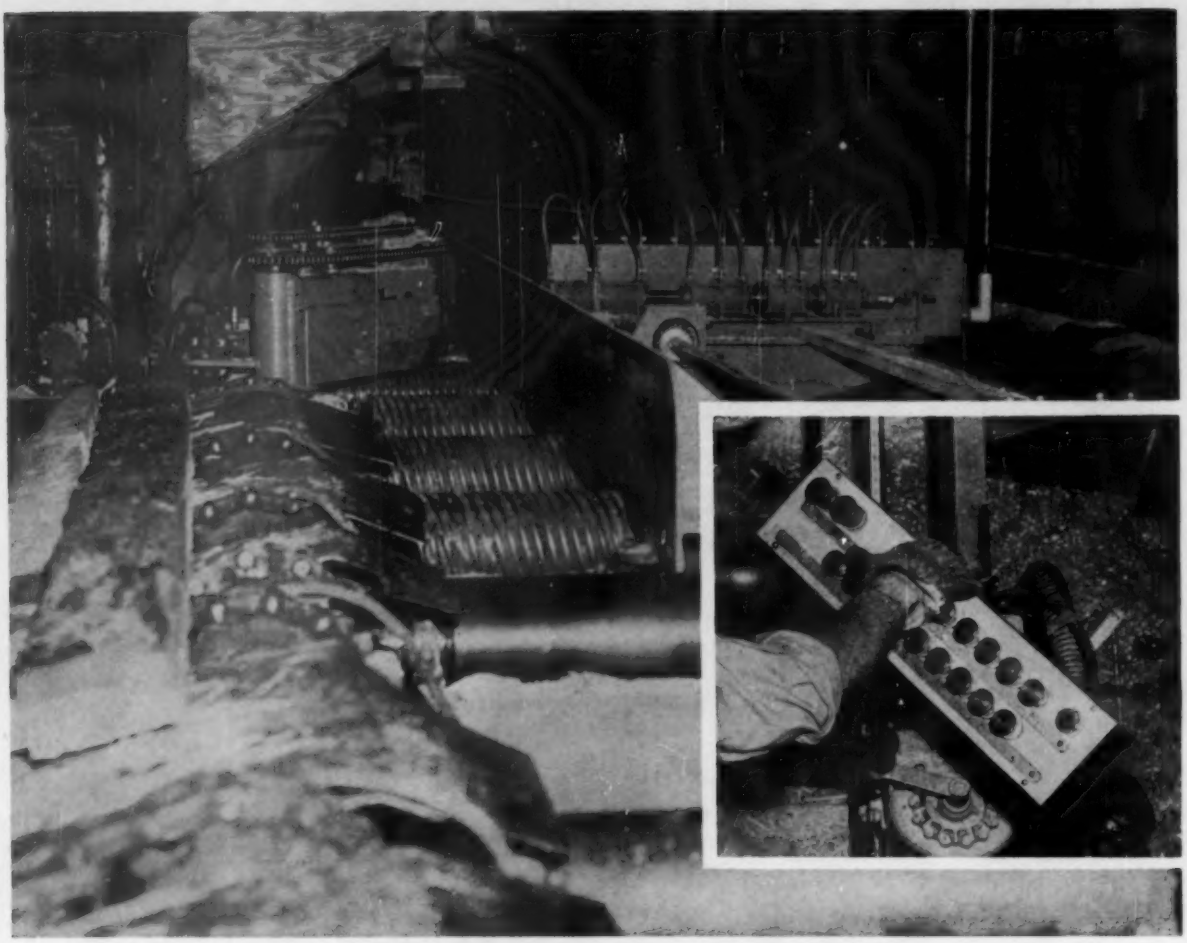

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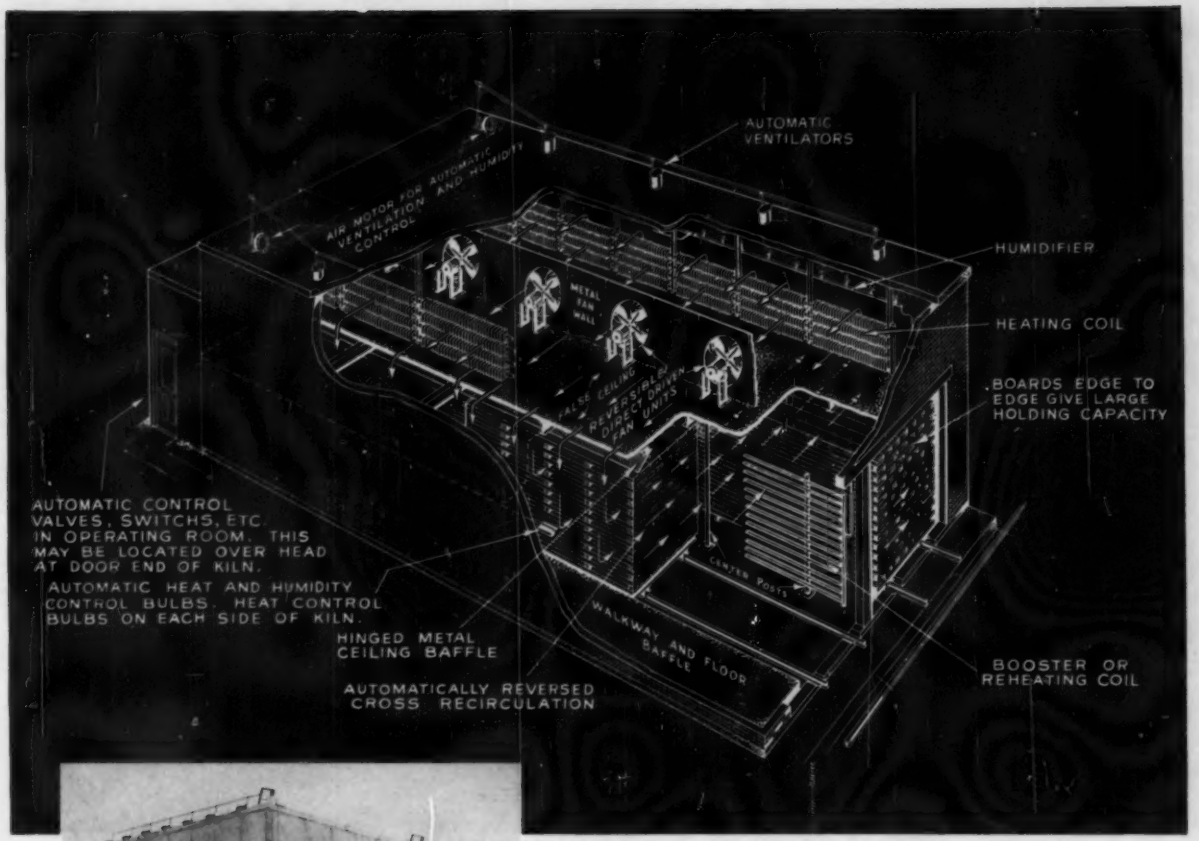
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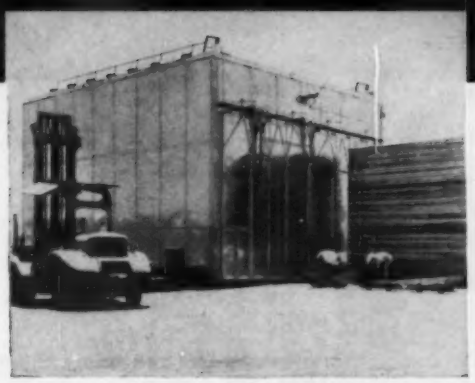

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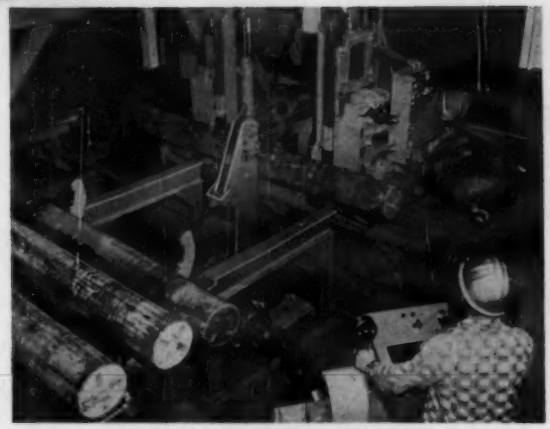
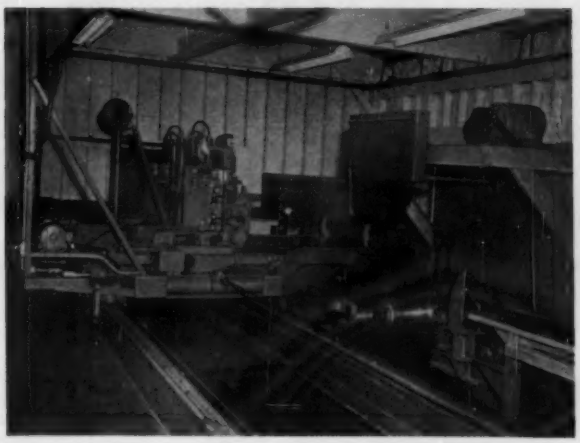


Two block high speed Prescott Air Dog Carriage features automatic sequence Setting.



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Plywood Production Doubled as high speed sander is made key piece of equipment at International Paper Co.'s Weed, Calif., plant in expansion program that reduces costs per M square feet.

The major portion of the program is completed. Some slight relocations of equipment and some modifications of materials handling units are still to be done, but the prime aim of the expansion program is being achieved: production of an improved product, faster and at less cost.

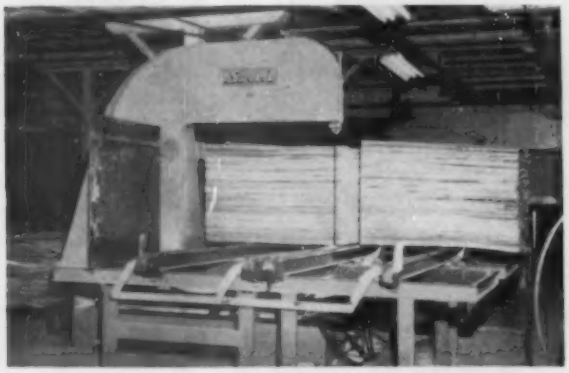
Here are some of the changes which IPCo. made, as it boosted production by approximately 2 million feet a month; added 45,000 square feet of floor space; two automatic panel feeders or drum sanders; new dryer, with automatic feed; automatic core saw; high speed belt sander; new lift tables; new glue mixing facilities; new 20-opening press; a Jointaper; two Skoog round plug patchers; three steam chambers for peelers; extension of green chain and four Sweeds; and an automatic conveyer system for refuse to the power house.

Sanding out of the skinner saw was the major operational change and this speeds up and simplifies production.

New office space was added and a large, comfortable crew lunchroom and washroom.

Although just the dryer and the Jointaper were located within the new floor space and most previously used equipment was changed but little, International Paper Co. in effect has a completely new plant as result of the modernization.

Core Saw



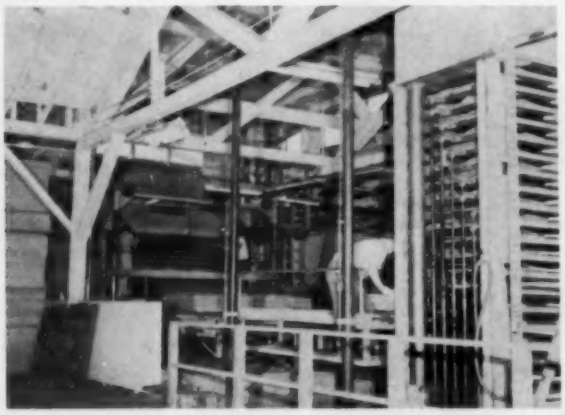
Boosting efficiency and production is a new Jeddeloh automatic Swede core saw. This 8-foot band unit has just passed through the veneer stack which now awaits fork lift removal. Lift trucks are used for handling stacks of stock in the plant.

Gluing mixing

Glue mixing facilities were almost wholly revamped. Liquids are now unloaded from trucks and piped to storage and thence piped to mixing room as needed. Overhead mixing is linked to Fairbanks Morse scale. Mixers are Fluckinger units.

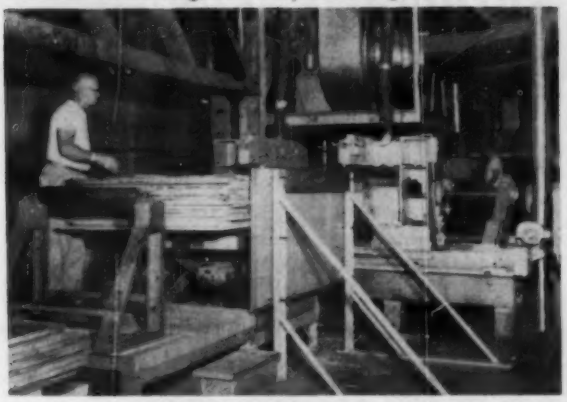
Drying and panel pressing

New Moore 17-section, 5-line dryer has become the number three of such units. It was only major equipment placed in the new structure area. All other space is devoted to warehouse, office and loading. Dryer is fed by Jeddeloh Swede automatic feeder.

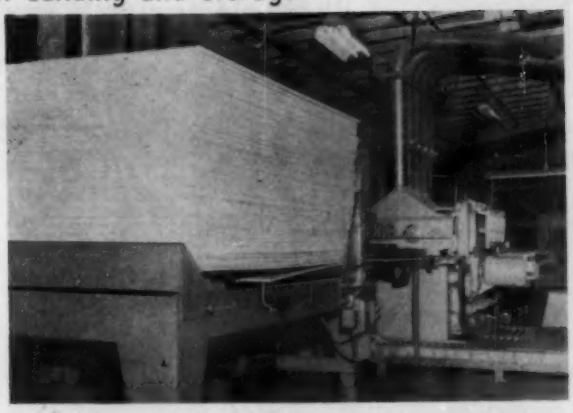


Press at right is a Williams-White 8-foot, 20 opening with Oilgear system, added in expansion. In background is 16-opening Williams-White in old line. Both are now used and are served by three spreaders. Stock can be fed to either press.

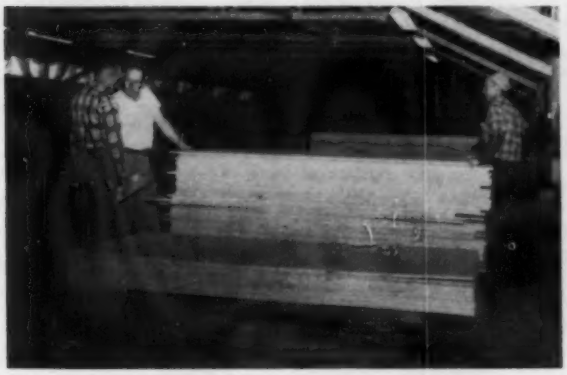
Panel handling . . . patching, drum and belt sanding and storage



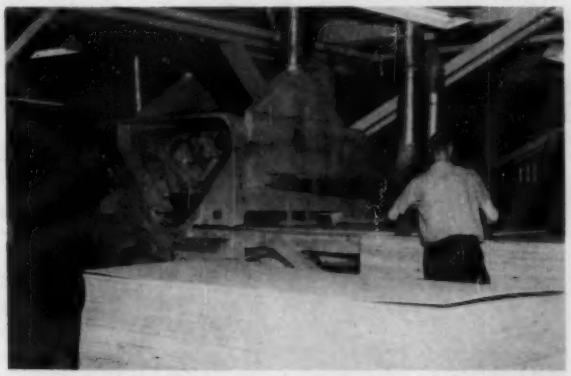
In the production flow pattern, unpatched panels go direct from this unit, a Greenlee skinner saw and Globe trimmer, to drum sanders. Panel stacks are raised by Lawrence lifts. Former system was rough patch, sand, grade and repatch.



From skinner saw, panels go to pair of drum sanders, both fed by Cardwell automatic feeders. Here, heavy panels are fed to Yates S800 sander. To right of photo is similar set-up, with a Y-A H268 sander. One man with fork lift feeds and offbears.

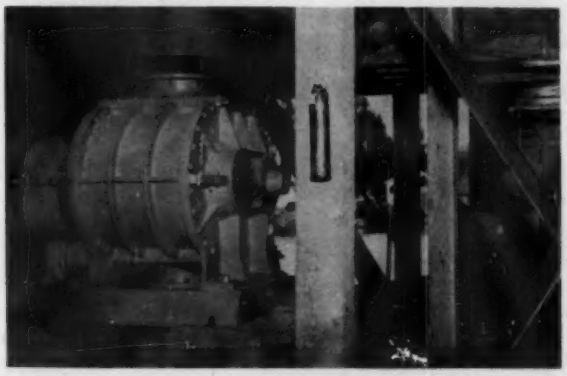


Panels from drum sanders are stacked for storage and then delivered to patch line. Superintendent Jim Dorhn, left, talks with crew members at temporary patch station. Patching stations are to be lined up in production line with scissor lift feeds.



Smithway top and bottom belt sander is a key in new system. Though in production line, it is being used experimentally. Speed variations are tried. Now running at 45-fpm it is capable of 120-fpm. Present location of the unit is also experimental.

Refuse removal

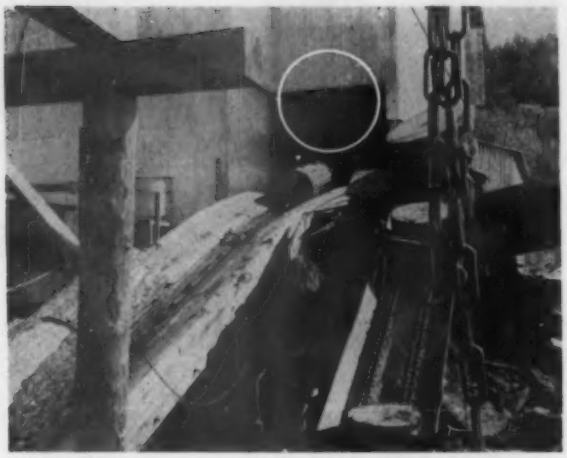


Rader Pneumatics refuse blower-conveyor system cuts cost of handling residue. Formerly trucked from the fuel house here, to power house, it is now blown nearly half a mile, some underground, some overhead, to the power house. Operation is automatic.

Shipping

A speed-up gained from expansion program is in loading and shipping. Truck is emerging from drive-through loading strip. To right of truck is the end of the covered rail loading facility which now handles up to four 40-ft. cars. ■■

Photo-electric cells key to Automatic Log Deck



SIGNAL LIGHTS over the opening to the plant enable the barkerman to signal the pondman whether he wants core or long blocks. Lily pads come move up conveyor at right to burner conveyor.

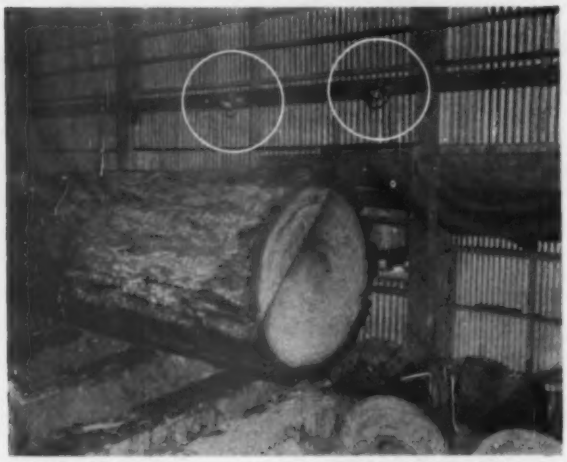
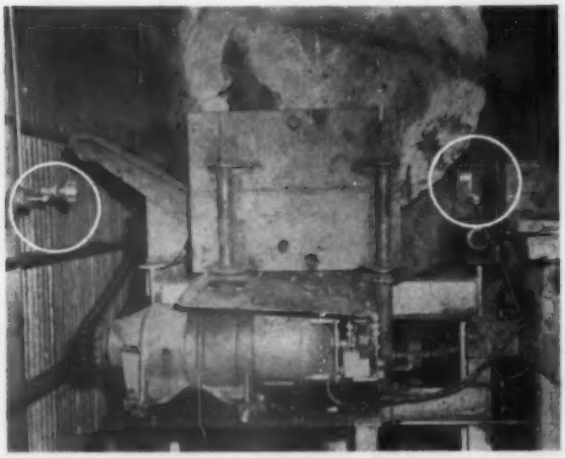


PHOTO-CELLS on log haul kick short core blocks to core side, allow long logs to go to 10-foot lathe. Light shining on photo-cell "measure" logs; photo-cells activate air kickers.



KICKER moving 10-foot logs to correct lathe also is activated by photo-cell beam. Projector spot is at left, photo-cell at right. Rolls are powered by GE 7½-hp motor controlled by solenoid.

An automatic log deck controlled by photo-electric cells is a prime feature of the heavily-automated green end of Drain Plywood Co., Drain, Ore.

But two men are required in the operation—one to feed the log-haul from the pond and another to operate the two barkers.

Blocks are bucked to length by the pond saw for both the 10-foot and core lathes with the two lengths channeled around to the log-haul by lanes. The log-haul feeder feeds a single log-haul with blocks of both lengths intermixed as ordered by the barker operator. The feeder receives his orders by two lights mounted over the opening where the log-haul enters the plant. With these lights, the barkerman signals which he needs—10 foot or cores—with the supply on the deck, inside, dictating his requirements.

As the blocks come across the end of the deck on power rolls, they pass between lights and photo-electric cells spaced five feet apart. The 10-foot blocks cut both beams at once. This causes the rolls to stop and the 10-foot block to be kicked onto the 10-foot barker feed chains.

Core-size blocks—those under five feet long—will intercept only one light beam at a time and will travel to the far end of the roll-case where they intercept another beam which stops the rolls and kicks them off onto the barker feed chains. The rolls automatically re-start after a block has been kicked off.

When the barker feed decks become full, the operator can switch the system to manual control until there is again room for automatic operation.

One man can operate both barkers, charging and starting one and then moving on to the other. The barker will stop itself on completion of its travel with a controlling limit switch on each end. During rush periods each barker is manned.

The barkers, which were built by Drain Machinery & Supply Co., Drain, Ore., have a travelling head which traverses the face of the block with air powering the scraper head. The head travels on rails with control lines telescoped under the deck so as to be out of the way during operation. The barkers are charged with overhead cranes. One shift on the barkers serves two lathe-shifts. ■■

PRINCIPAL EQUIPMENT: Drain Machinery & Supply Co., pond saw and barkers; General Electric 150 watt projector spotlights, Photo Electric Cells and 7½-hp motor with GE 206B solenoid on deck rolls; and Saw-Box 5- and 2-ton cranes.

BARKERS. In foreground is 10-foot unit; core barker at rear. Both are charged with overhead cranes. All control air lines are mounted under the deck to be out of the way during operation.

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If You're Considering Particle Board check these factors:

- Raw material—proximity and cost.
- Product—chipboard or flakeboard.
- Capacity—at least 5 million square feet a year.

By IAN B. KAY
Plant Engineer,
Columbia Engineering Co., Ltd.,
Vancouver, B. C.

"How profitable is particle board?" This is one question to which no clear-cut answer can yet be given. Its profit potential will depend on a number of widely-varying factors.

In the field of integrated forest operations, however, particle board does have a definite place as a means of converting low-value materials into high-value products. It is possible, given specific data regarding any individual situation, to calculate with considerable accuracy the potential profit of particle board, and to determine how it compares in this respect with other means of utilization.

One authority has listed 19 different varieties of particle board, over half of which are produced on the American continent. They can be divided into two major groups, however, according to type of particles they contain:

CHIPBOARD, which has wood particles many times in random shape, produced either by hammermilling raw wood or by passing it through a double disc attrition mill similar to those used for refining pulp;

FLAKEBOARD, which is wood particles in form of thin wafer-like flakes. Flakes are produced in the same manner as pulp-chips, the principal difference being that wood is fed into the machine with its grain approximately parallel to the plane of rotation of the knives. Both thickness and length of flakes can be controlled. By taking advantage of the strength inherent in the original wood structure, a stronger product than is usually possible with random particles may be obtained. This advantage, however, has its price. Flakeboard is more expensive to produce than is chipboard and the benefits may not always justify the additional cost.

USES AND APPLICATIONS of particle board correspond roughly to those of softwood plywood. It must not, however, be thought of as an inferior substitute for plywood or as the successor of plywood. For some uses, particle board has more desirable qualities, while for others plywood has distinctive properties that will make it a preferable material.

The first step in determining whether particle board is an answer to your particular case, is to look at some of the conditions that are favorable to a successful particle board operation:

- Proximity of markets large enough to absorb your products.
- Availability of wood in quantities of 25 dry-tons per day or more, and delivered at $10 or less per ton.
- Availability of sufficient capital, $500,000 or more, depending upon plant capacity.
- Situation where available resources of wood, water, power or capital are insufficient for manufacture of alternative wood products such as insulating board, hardboard or pulp. Particle boards can exist on substantially smaller quantities of such resources than can other industries mentioned.

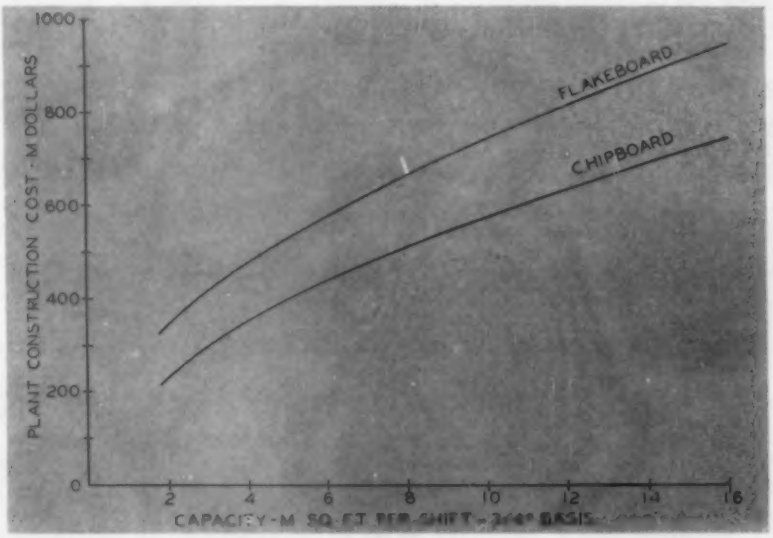
MARKETS ARE IMPORTANT. You must be able to:

- Offer either better product for the same price, or an equally good product at a lower price.
- Particle boards will have to sell in the same price range as sheathing grade plywood, though in many cases its use will correspond more closely with those of sanded grades of plywood. Many operations have been hampered through over-estimating prices at which their products could be sold.

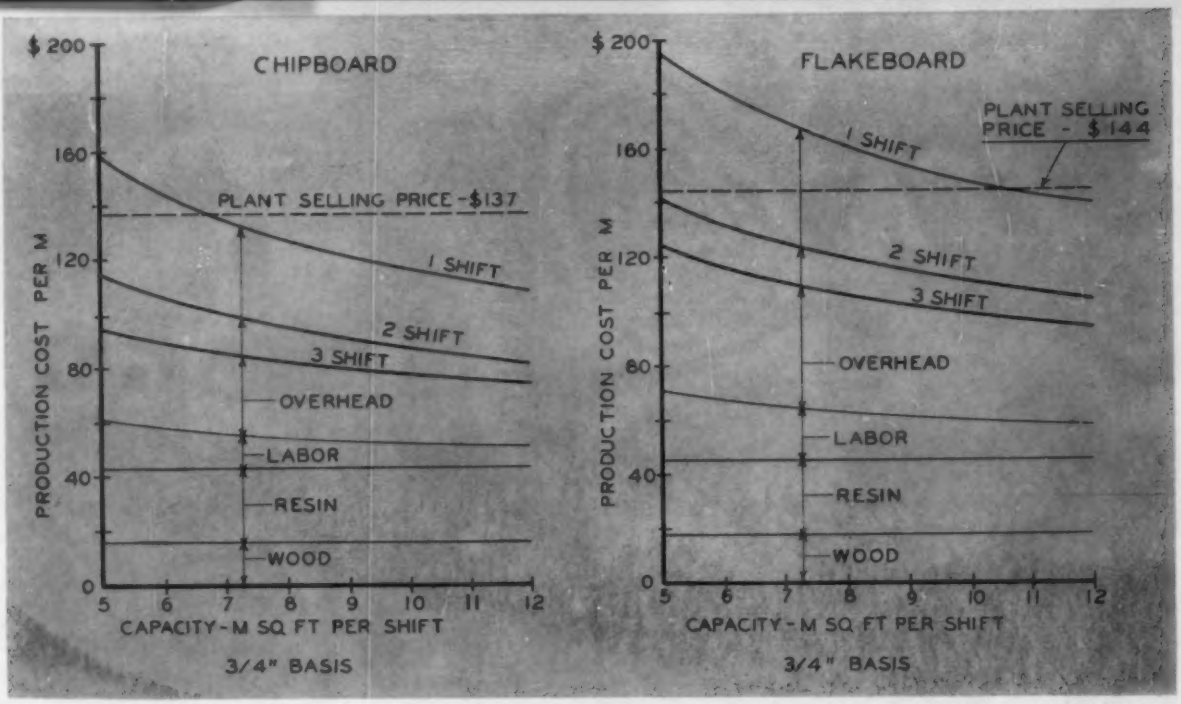
PLANT CAPACITY must be consistent with the size of the anticipated market. Except under special circumstances, it would probably be unwise to undertake the manufacture of particle board unless the anticipated sales volume is at least five million square feet per year, ¾-inch basis. Neither should the market be too distant to cause excessive shipping costs. Particle board can be produced anywhere supplies are available.

RAW MATERIAL AVAILABILITY is particularly important—especially to producers who must buy all or part of their wood supply from outside sources. Many manufacturers have found, after commencing production that their sources were neither as abundant or as cheap as had been expected.

Raw material can be of many forms and species or in combinations. It should, however, be as consistent and uniform in nature as possible. It is



CHIPBOARD VS. FLAKEBOARD. Relationship in chart shows plant investment is greater for flakeboard in plants with same capacity.



PRODUCTION COSTS VARY with capacity. Horizontal line representing selling price shows effect of sales volume on profit. In case shown in chart, flakeboard costs more to produce and the difference is not made up in selling price.

difficult to produce uniform product quality from widely varying raw materials.

Wood can be obtained from sawmill slabs and edgings, trim ends, planer shavings, small and cull logs, veneer scrap, peeler cores, and many others. Bark and sawdust are not usually admissible.

Minimum quantity required for an economical operation is about 25 tons, dry weight, per day, to supply 5 million square feet per year, ¾-inch board. Flakeboard requires somewhat greater volume of raw material due to the higher manufacturing losses incurred. There is also greater limitation of types of raw material which can be used for flakeboard.

Delivered cost of wood has a major effect on the economics of production. Wood cost is the most of all production costs. Unless this cost is kept at a minimum it will be difficult to meet competition.

PRODUCT must be consistent with both raw material and the market. This requirement will eliminate most of the 19 different types of board.

From the remainder a further selection may have to be made, balancing for each product the anticipated returns against the costs, tangible or otherwise, involved in producing and selling.

Some types of board are not only cheaper to produce than others, but are also easier to produce. Many specialty items command a good price, but also require higher sales expense. Most successful plants are generally those which produce general-purpose items, selling to a large market at a low price—smaller profit and larger turnover.

It is necessary to match the product and plant to prevailing local conditions, rather than vice versa. Production costs can only be accurately predicted with a knowledge of these conditions.

As a general guide as to what may be expected, study accompanying charts. There you see how the profit potential can be determined for any given set of conditions. Too often, however, it has been found that the operation fails to achieve in practice what the initial calculations predicted.

Possible causes of discrepancy between theory and performance should be examined. Such causes may be found anywhere along the line from the forest to the consumer. Many of them occur within the plant itself. Troubles in this latter area will exhibit such symptoms as:

- higher labor and handling costs;
- excessive down-time;
- a high reject factor;
- low and variable product quality.

IN PLANT ENGINEERING, two factors are frequently overlooked: The method of receiving, storing and handling raw materials, finishing, warehousing and shipping; and provision for controls throughout the manufacturing process to detect and quickly remedy any deviations from predetermined standards. Accuracy and uniformity are essential but they cannot by themselves eliminate product variations due to variation in the raw materials. Some of its variations that can affect the products are:

- Species and seasonal variations within the species.
- Moisture content.
- Proportion of sapwood to heartwood.
- Previous working by others, as in the case of planer shavings. Here qualities of material will depend on whether the lumber was planed green or dry, the feed speed and knife speed of the planer, sharpness of the knives and whether or not chip-breakers were used.
- Working within the plant. Product quality will be affected, for instance, by the constantly-varying sharpness of flaker knives.

To produce uniform product from variable materials requires constant control, both through instrumentation and the exercise of human judgment. This control can be effected either by applying a correction to restore an erring operation to the norm, or if warned in time, by applying a compensating adjustment at some later stage in the process so as to save the material already processed.

Particle board manufacture can be an effective and profitable means of utilizing low-valued wood. Its feasibility in any particular situation will depend on selection of a product and manufacturing facilities that are constant with raw materials and markets. Like any product, it must be sold. ■■

Equipment Leasing (*Continued from page* 37)

veys, the 10 leading industries using leased equipment in 1958 were nine manufacturing industries and the supermarket industry. They are (in alphabetical order): aircraft and parts; chemicals and drugs; construction and road-building; electrical equipment and machinery; fabricated metal products; food products; petroleum refining; printing and publishing; pulp, paper, and allied products; the supermarket industry. This year market the first time a non-manufacturing industry (supermarkets) was ranked among the top 10 users of leased equipment.

What is the length of equipment lease terms?

Terms range generally from 3 to 10 years or longer, though in some cases, where smaller sums are involved, they can be as little as two years. The user determines the length of lease he prefers, arranges the payments to suit his own needs. Leases are usually written on a uniform payment basis although they can be written on straight line, declining balance, sum of the digits, or any schedule preferred by the user.

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Is equipment leasing useful as a sales tool for manufacturers of production equipment?

In a number of industries, leasing programs have proved to be an effective method of increasing sales, through offering customers the option of purchase or lease—with the leasing company assuming the lease contract and paying the manufacturer 100% cash for the equipment when the equipment is delivered. Nationwide Leasing Co. is the leading specialist in this particular leasing field. The leasing company sets up a complete sales training program for the manufacturer so that his leasing plan will have maximum impact.

In merchandising-leasing plans, leasing is used as a primary sales tool, giving the manufacturer's salesmen an important new way to move goods. The customer has the benefit of the lease—the manufacturer has a cash sale. Not only does this normally enable a manufacturer to increase his sales by the added leasing volume, but the interest generated around the leasing plan results in opening new markets for the product and inevitably results in increased direct sales, often greater than the leasing volume.

How does leasing compare with other methods of financing?

Leasing offers 100% financing and provides the lumber producer with greater cash flow than any other financing method. As a result, the relative cost of leasing is less than other methods. Any expenditure of money to acquire equipment involves paying something for the use of the money. Even in the case of outright cash purchase, the lumber producer is sacrificing the earnings that his working cash would yield; this, in effect, is what he is "paying" for the use of his own money. In the lumber industry this means a "cost" of 33%—the average *before-tax* rate of profit on net working capital the industry has earned over the last five years.

Leasing frees more working capital immediately than any other method of obtaining equipment. This cash excess earns profits for the lumberman at his company's normal rate for the term of the lease. Over the leasing period the additional profits produced by this cash excess will most often be so great that the relative cost of leasing will be lower than other financing methods. (A complete analysis of the comparative cost of leasing and other financing methods has been developed by the Foundation for Management Research. It is entitled: "Lease or Buy? Comparative Costs of Equipment Acquisition." Single free copies may be obtained by writing

directly to the Foundation at 121 West Adams Street, Chicago 3, Illinois).

What are recent trends in leasing?

Two new trends have shown themselves: (1) the sale-leaseback transaction (commonly, but erroneously, termed purchase-leaseback) and (2) merchandising-leasing plans involving the cooperation of equipment manufacturers and a leasing company to increase sales.

In the sale-leaseback transaction, a company builds a new plant, sells the equipment and facilities to the leasing company as soon as it is completed and ready for use, and immediately leases it back. Often this is done with older plants also. This enables firms whose financial ratios would not otherwise permit them to expand at so great a rate, to do so without straining their capital structure.

What operating situations make leasing most advantageous?

• In general, where companies can expand their operations profitably, if additional equipment and machinery were made available at smaller annual expense than through use of their own capital.

• Companies which find themselves short of working capital but which have sufficient equipment, can remedy the situation through sale-leaseback transactions.

• Companies faced with competition that is using the latest equipment, while they themselves lag on cost-saving. In this situation, acquiring the new equipment is essential, but often a large initial cost is prohibitive. In this situation, leasing can often provide the solution.

• Companies which hold a tight check rein on capital expenditures and financial ratios. Leasing permits the management of these companies to secure new equipment without forcing the board of directors to raise more capital.

• Where rapid obsolescence is a strong possibility, leasing by-passes the problem of capital investment in such equipment.

• For pilot plants, developmental or experimental projects, leasing offers a means of opening new areas of production without draining working capital on such unproved ventures.

• Companies engaged in defense contract work are often enabled, through leasing, to obtain needed equipment for the term of the contract. In this way capital is not frozen in equipment which may not be useful after the contract has been fulfilled.

Do leasing agreements contain purchase options?

Yes, leasing agreements can contain purchase options. However, Nationwide Leasing Co. advises against including purchase options in the leasing agreement. The reason is that a purchase option generally converts a leasing agreement into a conditional sales contract, in the eyes of the Internal Revenue Department. There are some exceptions to this general rule, but these exceptions are uncertain and depend on specific rulings by the Internal Revenue Department at the conclusion of the contract, many years later. For this reason, purchase options are not recommended. True lease payments, as differentiated from disguised conditional sales contract payments, are legitimate deductions as operating expenses. Conditional sales contracts are reductible only at the rate specified in the federal government's depreciation schedules.

Do leasing contracts contain renewal options?

Yes, of course. In leasing, the cost of the equipment is paid for entirely in the original leasing term. Renewal options are usually available at extremely low cost. They can range in

(*Continued on next page*)

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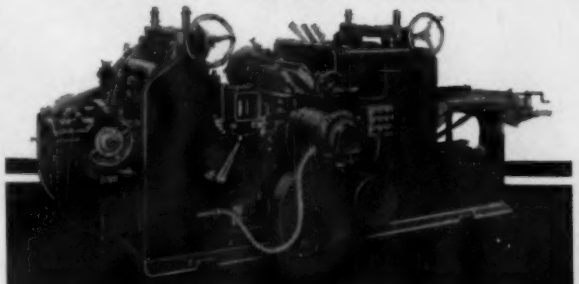

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Equipment Leasing *(Continued)*

length from one-year options to indefinite terms.

Does leasing offer companies tax advantages?

This has been an area of much misinformation. Leasing is not a method of tax avoidance; its primary value lies in the way it frees working capital for other uses. In certain specific situations leasing may also offer companies advantages of tax-timing which is not to be ignored. Leasing charges are legitimately deductible as business expenses. As such, they reduce taxable income now.

Leasing may also offer a tax advantaage that can be of particular importance to companies which find that their equipment tends to become obsolete much more quickly than government depreciation tables permit. For example, a company using equipment that experience shows it can expect to have to replace in seven years, may find that depreciation tables permit depreciation only over 15 years. By leasing this equipment for a seven-year period, this company would be able to deduct the full cost of the equipment from taxable income in seven years. If the company had purchased the equipment, it would only have used seven years worth of depreciation and would have to forego further depreciation benefits, if it wished to replace the equipment at the end of seven years.

In certain sale-leaseback situations also, tax advantages may accrue, since the sale of an asset normally involves taxation at the capital gains rate, if a profit is made, rather than at the corporate rate.

How can I tell if my company should lease or buy?

There is no method of financing that fits every situation equally. Factors to be judged include the availability of working capital, the rate of profit the company earns on its working capital, the effect of leasing on the company's cash flow as compared with other financing methods, the company's competitive situation, and whether there are any tax advantages in the company. ■■

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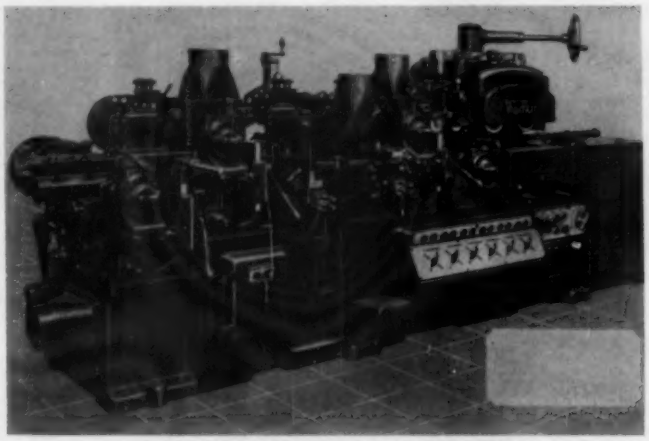

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Wood Promotion Budget Upped

(*Continued from page* 41)

promotional pieces for retail dealers, builders and contractors; and newspaper and magazine articles on the advantages of wood flooring systems.

Intra-Industry Cooperation. T. H. O'Melia of the Scotch Lumber Co., Fulton, Ala., chairman of the intra-industry cooperation subcommittee, reported that more than 1200 lumber wholesalers and commission salesmen have been solicited to date for NWPP contributions. This, he explained, was possible through the cooperation of the staff and officers of the National-American Wholesale Lumber Association, the Southern Wholesale Lumber Association and the National Association of Lumber Salesmen, Inc. Early returns from the solicitation have been "extremely gratifying," he reported.

At the same time, Mr. O'Melia disclosed that a file of 1800 potential contributors among the ranks of sawmill equipment and machinery manufacturers has been developed. Plans for next year, he said, provide for personal solicitation in the field. A pilot project now underway involves solicitation by mail of about 100 "prime prospects," he added.

NWPC Chairman Hood called attention to the fact that the National Wood Promotion Program is not presently supported by some members of some of NLMA's regional associations. Full support, he emphasised, would mean an additional $250,000 a year to the program, permitting the hiring of 18 additional technical promotion field men capable of 20,000 personal calls per year on architects, builders and others in the construction industry.

Hood stressed that "most of the regional associations have experienced an upsurge in membership" since the NWPP was started and said the program has brought about a closer relationship between NLMA and its regional members.

Commenting on the banding together of 40 wood industry organizations in the National Wood Council, Mr. Hood described cooperation of the International Concatenated Order of Hoo-Hoo as "the greatest thing that has been done to date." He also commended the National-American Wholesale Lumber Association for recently approving plans to inaugurate a special salesmen's training course open to all branches of the lumber industry. ■■

Another New Sawmill Planned in Montana

Montana Forest Products, Inc., has announced it will build a sawmill at Philipsburg, Mont., to cut 120,000 feet a day on a two-shift basis.

Principals are Albert E. Hurl, Oregon Alder-Maple Co., Willamina, Ore.; Duane Autzen, Portland Lumber Mills, Portland, Ore., and Harry Buehner, Buehner Lumber Co., Tillamook, Ore.

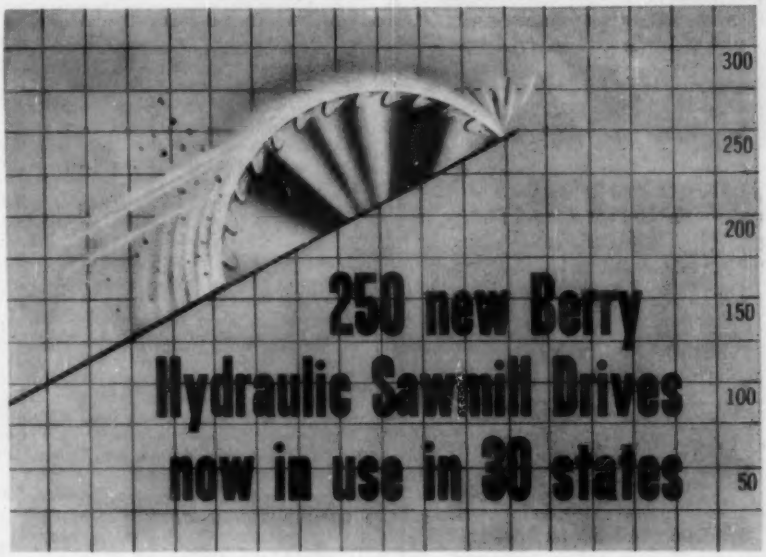
Production is anticipated in mid-1960.

The firm has taken over a timber contract formerly held by Western Forest Products Corp., Portland, Ore. Volume available will include 40 million feet on the Deerlodge National Forest and about 30 million feet of privately-owned timber. Species will be largely lodgepole pine with some Engelmann spruce and alpine fir.

•

Prefab Building Firm Plans Expansion

Ready Made Buildings, Inc., Joplin and Kansas City, Mo., is adding a new manufacturing plant in DeSota, Kan., to produce 1000 to 15000 homes annually. Principal output of the new plant will be factory-produced home components such as wall sections, roof trusses, interior partitions, finished stair sections and cabinets.



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S. A. Wilde, University of Wisconsin

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H. Arthur Meyer, Pennsylvania State University
Arthur B. Recknagel, St. Regis Paper Company
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Stephen H. Spurr, University of Michigan

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Industry Meetings

1960

JANUARY

Southern Pulpwood Conservation Association, January 12-13, Dinkler-Plaza Hotel, Atlanta, Ga.

B. C. Truck Loggers Association, January 13-15, Hotel Vancouver, Vancouver, B. C.

Appalachian Hardwood Manufacturers, Inc., January 13-15, Netherland Hotel, Cincinnati, Ohio.

Forest Fire Protection Committee, Canadian Forestry Association, January 18-22, Pacific National Exposition Grounds, Vancouver, B. C.

Ohio Forestry Association, Inc., January 21-23, Southern Hotel, Columbus, Ohio. State College, Corvallis, Ore.

Redwood Region Conservation Council, January 29, Eureka Inn, Eureka, Calif.

FEBRUARY

Logging Safety Institute, February 4-5, University of Washington, Seattle, Wash., sponsored by college of forestry, University of Washington, and Pacific Northwest Loggers Association.

National Wooden Pallet Manufacturers, February 7-9, Hollywood Beach Hotel, Hollywood, Fla.

Forest Management Control Conference, February 15-17, Purdue University Memorial Center, West Lafayette, Ind.

Industrial Safety Conference (California), February 16-17, Fairmont Hotel, San Francisco, Calif.

Fernhoppers Day, February 20, Oregon State College, school of forestry, Corvallis, Ore.

Northern Hemlock & Hardwood Manufacturers Association, February 23-24, Northland Hotel, Green Bay, Wis.

National Association of Commission Lumber Salesmen, February 25-27, Peabody Hotel, Memphis, Tenn.

Oregon Logging Conference, February 25-27, Eugene, Ore.

MARCH

Western Pine Association, annual, March 2-5, St. Francis Hotel, San Francisco, Calif.

Southern Forestry Conference (Forest Farmers Association), March 10-11, Robert Meyer Hotel, Jacksonville, Fla.

Redwood Region Logging Conference, March 17-18, Eureka, Calif.

Third Annual Cooperative Kiln-Drying Short Course, March 21-25, University of Illinois, Urbana, Ill.

West Coast Lumbermen's Association, annual meeting, March 24-25, Portland, Ore.

Intermountain Logging Conference, March 28-30, Spokane, Wash.

APRIL

Southern Pine Association, annual meeting, April 4-6, New Orleans, La.

Southern Forestry Symposium, April 6-7, Louisiana State University, Baton Rouge, La.

Northwest Wood Products Clinic, April 12-13, Davenport Hotel, Spokane, Wash.

Northwest Hardwood Association, spring meeting, April 15-16, Eugene Hotel, Eugene, Ore.

National-American Wholesale Lumbermen's Association, April 21-23, The Greenbrier, White Sulphur Springs, W. Va.

Northeastern Lumber Manufacturers Association, April 25-26, Syracuse Hotel, Syracuse, N. Y.

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HARDWOOD OFFICERS, from left: Bernard Bock, Eagle Lumber Co., Montreal, Que., re-elected president; and vice-presidents Donald F. White, White Bros., Oakland, Calif.; James P. Hamer, J. P. Hamer Lumber Co., Kenova, W. Va.; and Mark Townsend, Townsend Lumber Co., Stuttgart, Ark.

Hardwood Producers See Gains in 1960

Montreal, Que., was the site of the National Hardwood Lumber Association's 1959 convention. The three-day meeting of the hardwood men was one of the best attended meetings in the history of the association and saw Bernard Bock of Montreal re-elected president for a second one-year term.

In President Bock's annual message, he stressed the growing influence of national grading rules in foreign countries and pointed out the great benefits to be found in their use, providing as they do a mutual understanding which is of great value to buyers and sellers of hardwood lumber everywhere.

In his annual report, secretary-manager M. B. Pendleton announced the past year had been one of the biggest in the association's history and National Inspectors certified to nearly 270 million feet of hardwoods, he said. Business was reported to be generally good and the members were optimistic toward a continuing active demand for hardwoods.

Prominent speakers who addressed the business sessions of the convention included Lionell Chevrier, member of Parliament and first president of the St. Lawrence Seaway Project; Sarto Fournier, mayor of Montreal; Edward McFaul, personnel consultant of Chicago; J. W. Spooner, minister of lands and forests for Ontario; J. J. Bertrand, Quebec minister of lands and forests; J. Wesley McNutt, president of the Canadian White Pine Bureau; and R. W. Gould, secretary of the Furniture Manufacturers' Association of Quebec.

Southern Operator Ups Output With New Mill

Rogers Brothers Lumber Co., Inc., has started operating a new sawmill at Ferriday, La., its second in the area, and now has a daily production of 80,000 feet.

The new mill is designed to produce hardwood timbers up to 26 feet in length. It is an all-electric operation with push button trimmer and hydraulic feed and requires only six men on the mill floor.

The Rogers organization includes Mansfield Hardwood Sales Co., a wholesale division. This firm is now handling sales of a new sawmill at Jonesville, La., built by C. E. Johnson after the design of the Rogers mills at Ferriday.

•

Forest Products Week Planned for 1960

The National Wood Council is making plans to stage a National Forest Products Week October 16-22. Council chairman John D. Leland, International Paper Co. vice-president, will shortly name a committee to work on the "week" and another committee for a "Buy Wood Products First."

The latter program will be directed toward all persons in the lumber and wood products industries.

The National Wood Council will give full cooperation to the International Concatenated Order of Hoo Hoo who originated the idea of a Forest Products Week. Council members are also urged to make plans for local level participation in the program.

•

Southern Holdings Sold

King Lumber Industries, Canton, Miss., has purchased all holdings of Wax Lumber Co., Woodville, Miss. The transaction includes a sawmill at Woodville which will continue in operation, and standing timber. King Lumber operates a creosote treating plant at Canton, a band mill at St. Francisville, a dimension mill at Flora, and a flooring plant at Monroe, La.

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Use of Sealtite is particularly important in getting full value from veneer logs and flitches, cross-arm blanks, squares, bolts, dimension and similar high quality stock. Sealtite is extremely stable in storage, clean, non-staining and non-abrasive.

Available in five brilliant colors, Sealtite has excellent merchandising value in identification of quality end-coated lumber products. Use it to get full value from logs and lumber.

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Conveyor System Speeds Up Chip

plant. Material can be moved to plant, to storage—

Conversion from whole logs to purchased chips to supply material for its asphalt roofing plant at Savannah, Ga., necessitated installation of a chip handling and storage system by Certain-Teed Products Corp.

Link-Belt Co. designed and built the system which includes a hoist for rear-end dumping of semi-trailers and a conveyor arrangement which permits chips to be carried into the plant, to storage or be recirculated.

HOIST UNLOADS truckload of chips into outdoor chip storage and handling system at Certain-Teed Prodcts Corp. asphalt roofing plant in Savannah, Ga. In this Link-Belt Co. designed and built system, the double-strand flight conveyor at the base of the concrete storage hopper draws chips from the hopper and, when coupled with belt conveyor at left, delivers chips to storage.

CHIPS ARE DELIVERED TO SURGE BIN by double strand flight conveyor traveling beneath the storage hopper, emerging at right to put chips in surge bin over rotary table feeder. Belt can return chips to storage hopper where they are distributed by top run of flight conveyor.

Handling at Southern

or be recirculated.

A 15-ton hoist dumps the semi-trailers. It is on a carriage which travels on rails at the top of a 40-foot tower. Longitudinal movement of the hoist carriage permits it to remain directly over the trailer sling as it lifts it. The hoist is operated remotely from the base of the tower.

Chips are stored in a concrete hopper, 70 feet long and 14 feet wide. The base, which tapers to 3½ feet, is steel-lined at the bottom and accommodates a double-strand flight conveyor. The hopper is divided into two areas: the first 15 feet for unloading and the remaining 55 feet for storage. The sections hold 1500 cubic feet and 10,000 cubic feet respectively.

The flight conveyor, which is 118 feet horizontal centers, travels along the entire bottom of the hopper, then up an incline to a surge bin over a 72-inch diameter rotary table feed. It then returns over the top of the storage bin, making two vertical right angle turns at the truck loading end. Total vertical centers at this end is 22 feet.

Flight conveyor consists of two strands of SS 150 plus bushed chain with 6-inch channel pusher flights spaced at 24-inch intervals. Chains travel around four pairs of sprockets—two at the loading end, one at base of incline and one at discharge end.

Chain slides along steel plates at the base of the storage bin and also at the top of the bin. The conveyor is driven by a 25-horsepower motor through an RC flexible coupling, double reduction helical gear speed reducer and triple width RC roller chain drive.

The rotary table feeder has two plows, permitting chips to be fed directly into the plant on a 14-inch wide belt conveyor or discharged onto a 24-inch inclined belt conveyor, 54 foot horizontal centers and carried back to the top of the main storage bin. Here they are discharged onto the top run of the flight conveyor which carries chips over the bed of material.

The rotary table feeder regulating feed of chips to the plant is a smaller version of the high capacity 17-foot diameter feeder which Link-Belt furnishes to pulp mills. ■■

New Grading Rules Edition

The Southern Pine Inspection Bureau has completed its 1960 edition of Standard Grading Rules for Southern Pine Lumber which become effective January 1. Copies are now available.

The new rules do not materially change standards for established grades, but have been further simplified and new features added, including improvement of classifications.

•

B.C. Sawmill Purchased

Lumby Timber Co., largest lumber operation in British Columbia's North Okanagan country, has been purchased by S. M. Simpson, Ltd., Kelowna sawmill and plywood operators. Horace Simpson, president and general manager, says that the deal is in line with his company's general policy of expansion.

•

Wood Promotion Post Filled in Canada

G. Cleveland Edgett, Vancouver, B. C., who for many years has been in charge of sales promotion activities for B. C. Lumber Manufacturers Association, has been named executive director of the newly organized Canadian Wood Development Council, with offices at 37 Goulburn Avenue, Ottawa.

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MORE INSTALLATIONS

Than ALL Other Makes of Remote Controlled Setworks Combined!

There Must Be a Reason!

Typical of the overwhelming acceptance of Sel-Set's "Years Ahead" engineering in design and performance by mills and plants throughout the country is this recent installation at Willamette National Lumber Company in Foster, Oregon.
Now, through continuing engineering advancements, Sel-Set, the leader in carriage automation, is able to offer the all-new, all-purpose Model M3LC Select-O-Matic. A setworks designed for all mills, regardless of sawbox limitations, the M3LC is the only truly all-purpose remote control carriage setworks available.
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COLLINS PINE CO. (Sides 1&2) Chester, California
J. B. BELCHER & SON, INC. Staunton, Virginia

Scheduled Installations
MICHIGAN-CALIF. LBR. CO. Camino, California
GEORGIA-PACIFIC CORP. (Sides 1&2) (Booth-Kelly Div.) Springfield, Ore.
DIAMOND-NATIONAL CORP. Red Bluff, California
BLAGEN LUMBER COMPANY White Pines, California
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Hardboard Output Hits 2 Billion Feet

Enough hardboard will be produced in 1959 to extend a four-foot wide sidewalk four times around the world, members of the Hardwood Association learned at the seventh annual convention at the Drake Hotel in Chicago.

"About 2 billion square feet of hardboard will be produced in the United States this year," Robert D. Pauley, manager, Silvatek Division, Weyerhaeuser Co., Tacoma, Wash., and outgoing president of the Hardwood Association, said.

The industry had not expected to reach the 2 billion mark until 1960, Mr. Pauley said. He pointed out that 1959 production will nearly double that of seven years ago. According to a survey cited by Mr. Pauley, annual production is expected to double again during the next decade.

"Hardboard has not even approached its use horizon," Donald Linville, executive secretary of the Hardboard ssociation said. "Constant development of more end uses for hardboard will continue to expand the demand," he added.

HARDBOARD OFFICERS from left: F. M. Hughes, new president, receives gavel from retiring president Robert D. Pauley as executive secretary Donald Linville looks on.

"Hardboard is used primarily for industrial and construction applications. Manufacturers today are developing specialized types of prefinished wall panels for home and commercial use."

"Foreign competition has stimulated U. S. hardboard manufacturers to develop better products as well as new uses of them," F. M. Hughes, general manager, Forest Fiber Products Company, Forest Grove, Oregon, and incoming president, said. "Also, domestic hardboard manufacturers offer technical aid, developmental research, and customer service.

"The U. S. hardboard industry tailors its product to American needs," Hughes said.

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INDUSTRY TRENDS

Tight credit will be the most significant economic factor in the lumber industry in 1960, according to a survey of the industry by the National Lumber Manufacturers Association. Other factors to watch are increased competition from other materials, taxation, inflation, general business uncertainties, government regulations and international developments.

Some highlights of a survey of nearly 500 lumber and wood products manufacturers follow.

Production. 1960 total will likely show a gain of 2.8% over 1959. Production costs will advance 4% with industry employment remaining substantially unchanged.

Gross sales. Weighted average of replies indicate an increase of 2.9% over 1959.

Profit. Nearly three-fourths of the respondents expect their profit picture in 1960 to be as good or better than 1959.

Log supply. Nearly 94% of the firms forecast that availability of logs and stumpage in 1960 will be "fair to good".

Lumber consumption. The expected total of 39.5 billion board feet will be down about 2% from the 1959 total.

1960 outlook. A consensus of replies shows:

Demand for lumber and wood products in construction will decline approximately 1%.

Farm demand for lumber will be about the same as in 1959.

Furniture demand for lumber and wood products will gain 1%.

Railroad use of lumber will also gain 1%.

U. S. lumber exports will be about the same as in 1959.

Use of lumber and wood products for the manufacture of containers will be off nearly 2%.

Demand for wood wall paneling will increase 2%.

Private non-farm housing. Starts will decline about 3% from an expected total of 1.35 million in 1959 to 1.3 million in 1960.

What's to be done? Top priority goes to advertising, wood promotion, research and related activities.

Respondents urge the National Lumber Manufacturers Association to seek "improvements in the management and disposal of federal timber supplies."

The survey by the NLMA also asked producers of materials competitive with wood to give their opinions on business prospects for the coming year. Generally, competitive producers were more optimistic than lumbermen about their sales and profit outlook for 1960.

CONSTRUCTION OFF SEASONALLY. Total value of new construction put in place in October amounted to $4.8 billion, 5% less than in September, but 2% above October, 1958. In the first 10 months of 1959, aggregate value of work put in place was $46.7 billion, 13% ahead of the like period in 1958.

New private construction spending in October totaled $3.4 billion, 5% less than in September but 9% above October, 1958.

Private residential construction spending was $2 billion in October, 5% less than in September and 12% above October, 1958. In the first 10 months of 1959, spending for private housing amounted to $18.7 billion, 28% above spending in the first 10 months of 1958.

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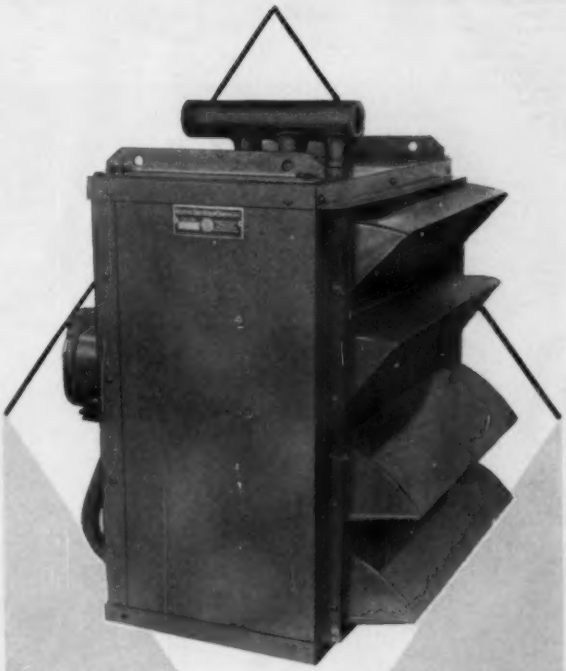
ALSO MAKES



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NOMINAL QUOTATIONS

La Salle Securities Co., Investment Securities,
208 La Salle Street, Chicago, Ill.

December 4, 1959

STOCKS	Paid 1958	This Month Bid	This Month Ask	Last Month Bid	Last Month Ask
Ambassador Oil, Com.	$ ——	3⅜	3¾	3⅜	3¾
American Forest Products, Com.	1.00 GS	33	35	34	36
Anderson Tully Co., Capt. Stk.	20.00	310	OW	310	OW
Atlas Plywood, Com.	——	12¾	C	13	C
Atlas Plywood, $1.25 Pfd.	——	23¼	25¼	23	25
Biles-Coleman Lbr. Co., Com.	*	18	OW	18	OW
Boise Cascade Corp., Com.	.60	45	46½	47	49
George E. Breece Lbr. Units	.30	2½	OW	2½	OW
British Columbia Forest Prod., Com.	.08	13⅛	C	12¾	C
Brooks-Scanlon, Inc. "A"	.55	19	OW	18½	OW
Brooks-Scanlon, Inc., "B"	.55	19	OW	18½	OW
Calaveras Land & Timber Co., Com.	2.00	27	OW	27½	OW
Calcasieu Paper Co., Com.	1.50	30	OW	25	OW
Cascades Plywood Corp., Com.	1.75	36	38	34	35½
Central Coal & Coke Co., Com.	1.00	29	32	29	31
Cherry River Boom & Lbr., Com.	——	45	OW	33	OW
Chicago Mill & Lbr. Co., Com.	1.25	24	26	25	27
Cloquet Lumber Co., Com.	*	1	OW	1	OW
Consolidated Naval Stores, Capt. Stk.	30.00	825	OW	825	OW
Container Corp., Com.	1.00	28⅝	C	27⅞	C
Container Corp., 4% Pfd.	4.00	82	C	83	C
Crossett Company, Class "A"	.60	47	50	44½	47½
Crossett Company, Class "B"	.60	47	50	44½	47½
Crown Zellerbach, Com.	1.80	55¼	C	54	C
Crown Zellerbach, $4.20 Pfd.	4.20	88	C	88¾	C
Curtis Companies, Com.	——	10½	11½	10¾	12
Dierks Forests, Inc.	5.00	150	OW	150	OW
Evans Products, Com.	.25	19⅞	C	18½	C
First Lumber Corp. Com.	——	12½	13½	12½	14½
Fordyce Lumber Co., Capt. Stk.	1.00	42	OW	42	OW
General Plywood, Com.	——	12⅞	C	13¼	C
Georgia-Pacific Co., Com.	1.00 GS	48⅜	C	52¾	C
Harbor Plywood, Com.	.40	21⅞	C	21⅝	C
Edward Hines Lumber Co. Com.	2.50	38	40	38	41
Insular Lumber Co., Com.	1.25	12	15	12	OW
International Paper, Com.	3.00 GS	136½	C	135¼	C
International Paper, $4 Pfd.	4.00	87½	C	88	C
Keyes Fibre Co., Com.	1.20	14¾	16	27	29
Kirby Lumber Corp. Com.	1.00	50	52	45½	47
Longview Fibre Co., Com.	3.00	89	92	89	92
Louisiana Central Oil & Gas., Com.	10.00	50	OW	50	OW
Louisiana Long Leaf Lumber Co.	5.00	152	OW	152	OW
Louisiana Sawmill Co., Com.	——	½	OW	¾	OW
MacMillan & Bloedel, "B" Com.	1.05	37¾	C	38¼	C
McCloud River Lumber Co., Com.	4.00	105	115	115	OW
McCloud River Railroad, Com.	2.00	40	OW	40	OW
Meadow River Lumber Co., Com.	*	225	OW	200	OW
Medford Corp., Com.	7.00	275	OW	270	280
Mississippi Land Co., Capt. Stk.	1.50	15	OW	15	OW
Northwest Paper Co., Com.	.80	37	OW	37	40
O. & N. Lumber Co., Capt. Stk.	3.00	42	OW	42	OW
Olin Oil & Gas, Com.	——	17¼	18¼	16½	18½
Ozan Lumber Co., Com.	.90	92½	OW	93	OW
Pacific Lumber Co., Capt. Stk.	10.00	330	OW	330	OW
Pickering Lumber Co., Com.	.30	9¼	10¼	10	11
Pine Tree Manufacturing Co.	3.65	50	OW	50	OW
Pope & Talbot, Inc. Com.	1.00	36	39	35	38
Pope & Talbot, Inc., Pfd.	.30	4¾	5¼	4¾	5¼
Potlatch Forests, Com.	1.00	57½	60	57½	60½
Powell River Co., Ltd., Com.	1.50	17½	18½	17⅛	C
Puget Sound Pulp & Tbr. Co., Com.	.80	26⅝	C	27¼	C
Richmond Cedar Works Mfg. Com.	——	½	1	⅝	1⅛
Richmond Cedar Works, Com.	——	1¼	1¾	1⅜	2⅛
Ritter, W. M., Lumber Co., Com.	2.00	40½	43	40½	42
Roddis Plywood, Com.	.10	14½	15½	14¼	15¼
St. Regis Paper, Com.	1.40	56¼	C	51⅛	C
Southern Minerals Corp., Com.	——	4	5	4¼	5¼
Southwest Lumber Mills, Com.	——	17¼	19	17	18
Tremont Lumber, Com.	2.00	70	OW	65	OW
U. S. Plywood, Com.	1.62½	44⅞	C	42¼	C
Union Lumber Co., Com.	1.25	60	OW	58	OW
United States Lumber, Com.	.35	4¾	5¾	4¾	5¾
Upson Company, Com.	.80	12½	13½	12	13
Weyerhaeuser Timber, Com.	1.00	41¾	43¾	42¾	44¾
Winton Lumber Co., Com.	.92	16	OW	15½	OW
Wood Conversion Co., Com.	.40	14½	15½	14	16
Wooduse, Inc., Com. (Now Fensolin Corp. Com.)	——	¾	1¼	¾	1½
BONDS					
Georgia-Pacific Corp. Subordinated Deb., 5s due 1976	——	82½	85½		

* Information not available
OW—Offerings Wanted
x Split 2 for 1
BW—Bids Wanted
C—Last sale on Exchange where listed or bid
S—Stock

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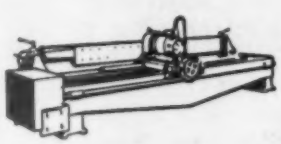
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RADER PNEUMATICS Inc.

A Real Wide Door Car . . . Entire Sides Fold Up

Southern Railway System has developed a new freight car into which lumber loads 40 feet long can be loaded easily. The doors are the sides of the car and they swing up into a storage position under the roof by means of hydraulic lifts.

With the sides up, there are two openings 20 feet long. Then the metal center posts swing up out of the way and metal side stakes are lowered into the floor so the car is entirely open on the side.

Shifting of loads is prevented by two side stakes at each doorway. Longitudinal movement is controlled by two movable bulkheads, rolled into position on overhead trolleys and locked to the trolley and floor.

Construction details:

Inside length ..... 42′6″
Inside width, between stakes..... 9′4″
Inside height ..... 9′7″
Distance between truck centers....37′2″
Distance between pulling faces of couplers ..... 49′8″
Trucks—roller bearing, 70-ton capacity, 33″ diameter wheels
Lightweight—75,400 lbs.
Load limit—134,600 lbs. (70 tons nominal capacity).

•

Simpson To Build Small Log Sawmill

The new plant at Shelton, Wash., will handle logs from 6 to 22 inches in diameter and will have a capacity of 120,000 board feet per 8-hour shift.

Simpson Logging Co. says the double-cut band and whole log gang operation will be in production late in 1960. With this additional capacity, Simpson will have a daily capacity of more than 700,000 at its three Shelton mills.

The new installation will also include a mechanical barker.

Simpson also plans extensive dredging of the harbor and construction of an outdoor chip storage bin with a capacity of 100 units at Shelton.

Logs for the new mill will come from Simpson's Olympic Tree Farm in the Shelton Cooperative Sustained Yield unit.

•

$6 Million Board Plant Announced by Crossett

Gum wood shavings will be used to manufacture a medium density board at a new plant to be built at Crossett, Ark., by Crossett Co. The manufacturing process is under a franchise issued by Roddis Plywood Corp., Marshfield, Wis.

Construction will start early in 1960 and operation is expected within 18 months.

Plans are to run the plant 24 hours a day, seven days a week. Capacity it to be 100 tons per day, about 25 million square feet per year on a ¾-inch basis.

The new plant will be adjacent to the main facilities of Crossett Lumber Co.

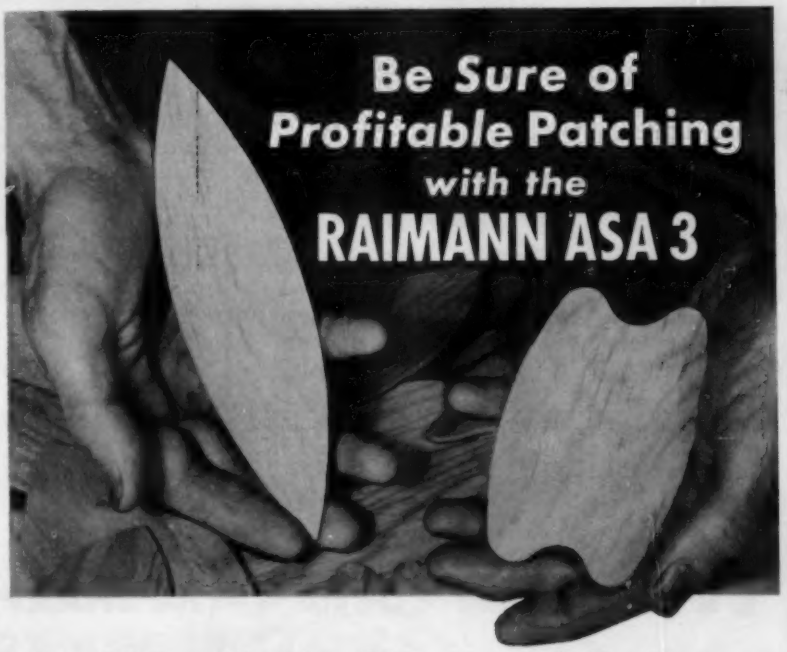
Roddis holds exclusive rights in the U. S. for the manufacture of this product, trademarked Timblend wood shavings board and made by the patented Behr Process. It will be the second Behr Process plant in the United States. The other is operated by Roddiscraft, Inc., a subsidiary of Roddis Plywood, at Arcata, Calif.

•

Clapp Elected to Head Weyerhaeuser Co.

Norton Clapp, chairman of the board since mid-1957, has been elected president of Weyerhaeuser Co. to succeed F. K. Weyerhaeuser who will become chairman of the board.

F. K. Weyerhaeuser has served as president of the company since late 1956, succeeding his brother J. P. Weyerhaeuser, Jr., after the latter's death.



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One patcher provides *full coverage* of your patching requirements—the Raimann ASA 3. Whether an order calls for patching with standard-size dies or the giant, seven-inch dies, your Raimann ASA 3 performs the same, with only a few minutes required to change over from one size to the other. Patch everything at 42 cycles per minute—face, back, core and crossband, in thicknesses from 1/20 to 1/5 inch, depending on die shape. The production-boosting Victor Automatic Patch Strip Loader is included with this "super" patcher. Also available—the Victor Patch Strip Hog that gives you automatic patch-strip waste disposal plus savings in clean-up time.

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Wholesalers Pick Mulrooney To Succeed Sid Darling

John J. Mulrooney, for a number of years a director and member of the executive committee of the National-American Wholesale Lumber Association, has been elected executive vice-president of the association. He will assume the post January 1, succeeding Sid Darling who is retiring. However, Mr. Darling will continue as a consultant.

Mr. Mulrooney will discontinue his lumber activities as president of H. M. Bickford Co., New York City, and join the association as assistant executive vice-president to break-in under Mr. Darling before taking over the post.

The wholesalers say their sales training program to boost lumber sales will start in February.

•

Barker Economics

John W. Lehman, chief of utilization section of the Tennessee Valley Authority Forestry Relations recently told a group of southern lumbermen meeting in Red Bay, Ala., that a sawmill operator with a market for clean mill leftovers who produces between 8000 and 10,000 board feet of lumber a day can profitably install a log barker. An operator with a market for chips who produces 10,000 to 15,000 board feet or more a day can profitably put in both a barker and chipper.

•

Kinzua Corp. Buys Heppner Pine Mills

The sawmill and timber holdings of Heppner Pine Mills, Inc., Heppner, Ore., have been purchased by Kinzua Corp., Kinzua, Ore. The operation will be continued.

H. J. O'Donnell, president of Kinzua Corp., says Heppner's timber holdings will be incorporated in the Kinzua Tree Farm. Kinzua owns timber in Morrow and Wheeler counties.

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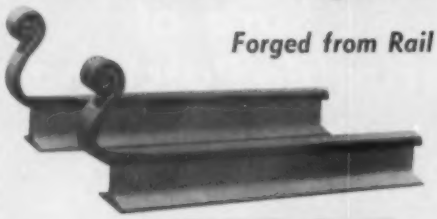

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Metal Detector *Save Machinery!*

Stop the Accident Before It Happens

Metal detector

SCR-625 Army mine detector

Recommended by U. S. Forestry Service and in numerous articles for finding concealed metal in logs and timber products. The Dautzler Lbr. Co., Perkinston, Miss., reports an estimated savings of $5,000 to $6,000 yearly. Write us for copy of free report of U. S. Forestry Service.

The SCR-625 is a portable instrument which may be used in the field to give an audible indication of buried metal in logs, underground, or in water. It may also be connected permanently with suitable automatic control devices for stopping machinery should imbedded metal in logs be encountered.

Detector is shipped in handy portable carrying case with instructions and ready to operate except for batteries. Ship. wt. 55 lbs. Our recent Government surplus purchase allows the present low price of $79.50 ea.

New set of batteries, per set—$6.27. Special price to quantity users or dealers upon request.

We maintain service and parts of the SCR-625. Parts price list on request.

Used Metal detectors $39.50

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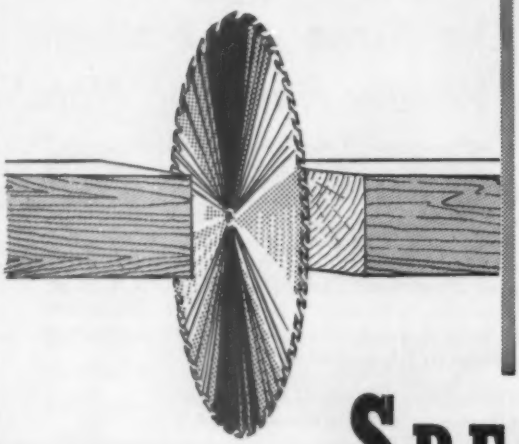

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Douglas Fir

1x8	Utility S4S KD	$ 55- 60.00
2x4	Construction Dimension S4S KD	87- 89.00
1x4	C&Br VG Flooring KD	180-185.00
1x6	C&Br Drop Siding KD	155-160.00
1x6	C&Br S4S KD	170-175.00
1x8	C&Br S4S KD	170-175.00
1x10	C&Br S4S KD	175-180.00
1x12	C&Br S4S KD	215-229.00

Construction Timbers and Plank

3x12	6-20 feet	$ 95- 98.00
3x12	22-24 feet	100-103.00
3x12	26-32 feet	108-113.00
4x4	8-20 feet	96- 99.00
4x4	22-24 feet	101-104.00
4x4	26-32 feet	110-115.00
6x6	8-20 feet	95- 98.00
6x6	22-30 feet	102-105.00
6x6	32-40 feet	117-120.00
8x8	8-20 feet	94- 97.00
8x8	22-30 feet	99-102.00
8x8	32-40 feet	114-117.00
6x6, 8x10, 10x10, 12x12	8-20'	$92- 95.00
6x10, 8x10, 10x10, 12x12	22-30'	97-100.00
6x10, 8x10, 10x10, 12x12	32-40'	112-115.00

Construction Dimension (Green)

2x4	6-24 feet	$ 77- 79.00
2x6	6-24 feet	77- 79.00
2x8	6-24 feet	77- 79.00
2x12	6-20 feet	78- 80.00

Standard & Btr. Boards (Green)

1x4	6-20 feet	$ 62- 65.00
1x8	6-20 feet	73- 76.00
1x12	6-20 feet	71- 74.00

Douglas Fir Plywood

1/4-inch AD SO1S	$72.00

Southern Pine (KD Stock)

Vertical Grain Flooring

	BB	C	D
1x4	$215.00	$205.00	$152.00

Flat Grain Flooring

1x4	165.00	157.00	140.00
1x6	190.00	177.00	135.00

Drop Siding

1x6 No. 106	197.00	184.00	137.00
1x6 No. 116	197.00	177.00	137.00

Boards and Shiplap

	1x6	1x8	1x10	1x12
No. 1	$130.00	$132.00	$130.00	$175.00
No. 2	84.00	89.00	85.00	100.00
No. 3	73.00	82.00	80.00	81.00

No. 1 Dimension

	12	14	16	18	20
2x4	$107.00	107.00	107.00	119.00	119.00
2x6	101.00	101.00	101.00	116.00	116.00
2x8	100.00	100.00	96.00	115.00	115.00
2x10	110.00	112.00	107.00	125.00	125.00
2x12	115.00	112.00	112.00	125.00	130.00

No. 2 Dimension

	12	14	16	18	20
2x4	$102.00	102.00	102.00	115.00	115.00
2x6	94.00	94.00	94.00	111.00	111.00
2x8	95.00	93.00	89.00	108.00	108.00
2x10	98.00	98.00	91.00	107.00	110.00
2x12	96.00	96.00	97.00	115.00	120.00

The following F.O.B. mill prices, based on Past Sales, were reported to the WESTERN PINE ASSOCIATION by members during the period November 23 to January 5, 1959, inclusive. Both direct and wholesale sales are included and are based on specified items only. They are for dry surfaced lumber.

Western Pine

Ponderosa Pine

Selects S2 or 4S	4/4 RW	5/4 RW	6/4 RW
C Select RL	$259.41	$260.38	$257.07
D Select RL	169.48	194.21	187.79

Shop S2S	No. 1	No. 2
5/4	$146.15	$113.41
6/4	145.62	113.15

Commons S2 or 4S	No. 2	No. 3
1x8" RL	$ 92.73	$ 73.06
1x12" RL	102.20	75.69
4/4 No. 4 Common S2 or 4S		$ 61.02

Idaho White Pine

Selects S2 or 4S	4/4 RW	6/4 RW
Choice (C) RL	$249.92	$290.00
Quality (D) RL	163.18	236.49

Commons S2 or 4S	Col. (1)	Ster. (2)	Std. (3)
1x8" RL		$109.50	$ 81.72
1x12 RL"		143.92	88.73
4/4 Utility (No. 4) S2 or 4S RW&L			$ 60.08

Sugar Pine

Selects S2 or 4S	4/4 RW	5/4 RW	6/4 RW
No. 1 & 2 Clear RL	$283.16	$274.71	$282.10
C Select RL	273.34	269.12	273.53
D Select RL	189.97	204.76	202.13

Shop S2S	No. 1	No. 2	No. 3
5/4	$149.54	$115.35	$ 86.84
6/4	150.58	115.46	85.02
8/4	172.44	127.92	85.82

Larch-Douglas Fir

4/4 No. 3 Common S2 or 4S		$ 68.63
2x4 No. 1 Dimension RW&L		84.70
2x4 No. 2&Btr. Dimension RW&L		75.47

•

Oswald Promoted At Simpson Redwood

Gilbert L. Oswald has been promoted to vice-president and general manager of the Simpson Redwood Co. at Arcata, Calif. He has served as general manager of Simpson Redwood operations in northern California since mid-1959, succeeding Gordon J. Manary who continues as a Simpson vice-president in an advisory capacity.

Oswald joined the Simpson organization at Shelton, Wash., in 1946, and was transferred to the redwood operations in 1958.

Laminated Hardwood Block Flooring Standard Sought

The proposed standard would establish two grades, Prime and Standard, both in prefinished and unfinished. It would cover the quality criteria for 9x9-inch blocks, tongue and grooved and also provide a method of labeling.

A modified waterproof bond would be required that would pass a one hour boil test.

Participating in establishment of the standard are the Hardwood Plywood Institute and the National Oak Flooring Manufacturers Association. Private companies participating include: E. L. Bruce Co., Memphis, Tenn.; Higgins Industries, New Orleans, La.; Nickey Brothers, Inc., Memphis, Tenn.; Perry County Plywood Corp., Beaumont, Miss.; Southern Plywoods, Inc., Greenville, Fla.; Standard Plywoods, Inc., Clinton, S. C.; Wood-Mosaic Company, Louisville, Ky.

•

Lumber Buyer Named

Robert J. Burke has been named northwest lumber buyer for Clay Brown & Co. He will purchase lumber for the California sales offices and Portland, Ore., headquarters. Mr. Burke has worked with West Oregon Lumber Co. and the wholesale division of A. C. Dutton.

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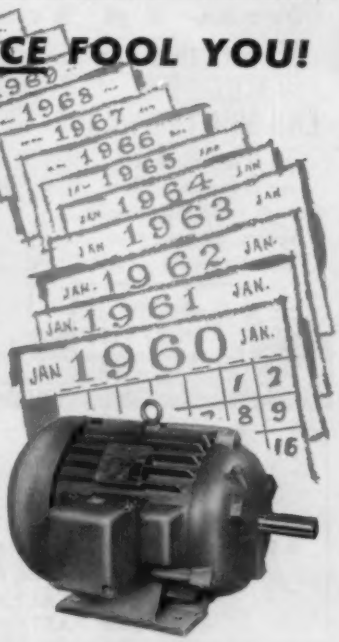

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Saltzman Heads Western Wholesale Shippers Body

Harold H. Saltzman, Oregon Pacific Lumber Co., Portland, Ore., was elected president of the Western Lumber Marketing Association at its annual meeting in Portland, Ore. Vice-presidents of the group are Gordon S. Giovanelli, Northwest States Lumber Co., Bellevue, Wash.; Carl F. Wimberly, Jr., Western Lumber, Inc., Medford, Ore.; and James Mounsey, Mounsey Lumber Co., Spokane, Wash.

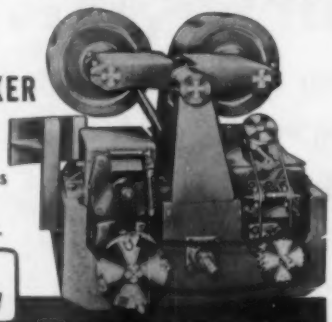
At the meeting, Dr. Warren W. Etcheson, business research director of the University of Washington, pointed out that the average wholesaler in the west has increased his sales of carloads of lumber from 1400 in 1950 to 3300 in 1958.

•

Pole Treating Plant

A plant to treat poles and posts from 3 to 5 inches in diameter and up to 30 feet long has started operating at Colville, Wash. It is owned by Eldon and George Shriner. The plant can peel up to 1500 posts a day. The treating tank will hold 5000 gallons of the pentachlorophenal used for treatment. Raw material, lodgepole pine, comes from 30 to 35 suppliers in the area.

Dress Up Your Lumber
with this
MODERN
END PRINTER-WAXER



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STETSON-ROSS MACHINE COMPANY INC
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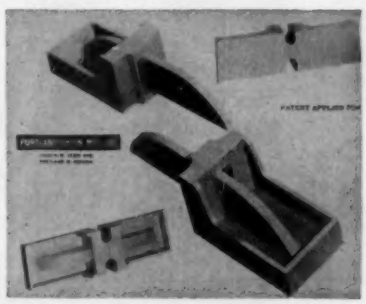
"PORTALLOY is to chain as COPENHAGEN is to snoose"



PORTLAND CHAIN MANUFACTURING CO.
IN THE HEART OF THE LOGGING INDUSTRY
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Simpson Timber Ups James to P. R. Director

Dave James, with the Simpson organization since 1947 in publications editor and public relations positions has been appointed director of public relations of Simpson Timber Co., Seattle, Wash.

DAVE JAMES

Mr. James, a former newspaperman, is chairman of the West Coast Lumbermen's Association public relations committee, a member of the American Forest Products Industries public relations advisory committee and serves on the natural resources committee of the Chamber of Commerce of the United States.

Mr. James is succeeded as public relations director at Simpson Logging Co. by Oscar Levin, managing forester of the Simpson Olympic Tree Farm at Shelton. W. S. Looney takes over as Tree Farm manager.

•

Oregon Particle Board Plant Chief Named

Irvin Wentworth, most recently production analyst for Potlatch Forests, Inc., Lewiston, Ida., has been named production manager of a particle board plant being built by Wood Fibreboard Co. near Albany, Ore.

Mr. Wentworth has served as director of production development and general manager of Pack River Tree Farm Products' particle board division, Tenex, Inc., at Sandpoint, Ida.

The plant will have a capacity of 125 tons of particle board daily. It is a joint venture of Willamette Valley Lumber Co., Dallas, Ore., and Santiam Lumber Co., Sweet Home, Ore. It will be in production in mid-1960.

•

Forest Fiber Fills Post

John Caruth has been named a field representative in the southern California-Arizona area for Forest Fiber Products Co., Forest Grove, Ore. Mr. Caruth is a native of Ireland where he was educated. He has worked principally in the building field.

•

Canadian Firms Win

Two Canadian lumber manufacturing associations have been honored for safety accomplishments. The British Columbia Lumber Manufacturers Association and the Northern Interior Lumbermen's Association are among 10 such industry groups in the United States and Canada to be honored. Also, they are the only forest industry groups on the North American continent to win the award. The awards honor above average progress in accident prevention and excellence and balance in safety programs.

•

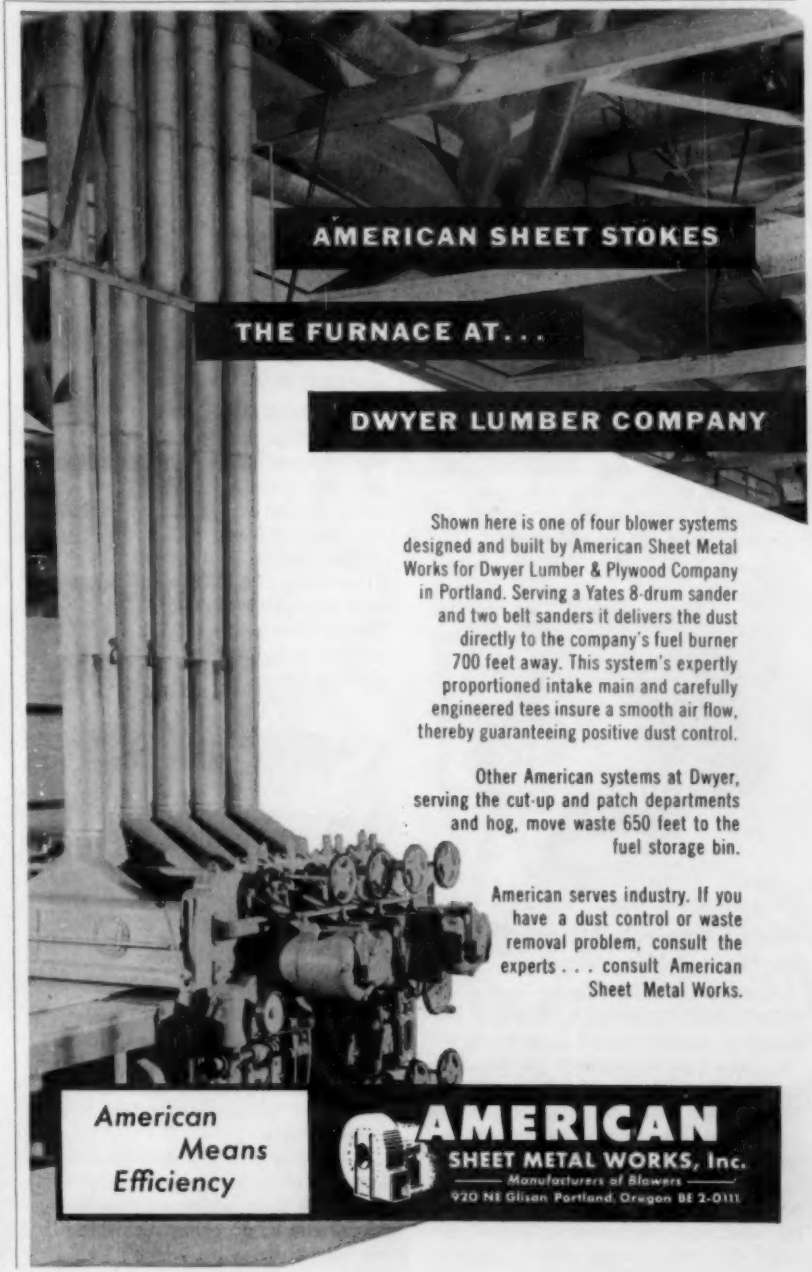
• The American Institute of Timber Construction has named John G. Ross, formerly with the New York Telephone Co. as administrative manager, and selected Worden & Co. as public relations council. George M. Worden will act as director of information of AITC.

New Planer Operating

The Clearwater Mills, Inc., division of Troy Lumber Co., Kamiah, Ida., has started production in its new $100,000 planing installation. The new plant has a capacity of 80,000 feet a day. The firm is also installing kiln facilities.

•

•Paul Ehinger is new assistant general manager of the Westfir, Ore., division of Edward Hines Lumber Co. Mr. Ehinger has been with the division since 1949, working as chief forester and engineer, and as logging manager since 1956.


AMERICAN SHEET STOKES
THE FURNACE AT...
DWYER LUMBER COMPANY
Shown here is one of four blower systems designed and built by American Sheet Metal Works for Dwyer Lumber & Plywood Company in Portland. Serving a Yates 8-drum sander and two belt sanders it delivers the dust directly to the company's fuel burner 700 feet away. This system's expertly proportioned intake main and carefully engineered tees insure a smooth air flow, thereby guaranteeing positive dust control.
Other American systems at Dwyer, serving the cut-up and patch departments and hog, move waste 650 feet to the fuel storage bin.
American serves industry. If you have a dust control or waste removal problem, consult the experts . . . consult American Sheet Metal Works.
American Means Efficiency
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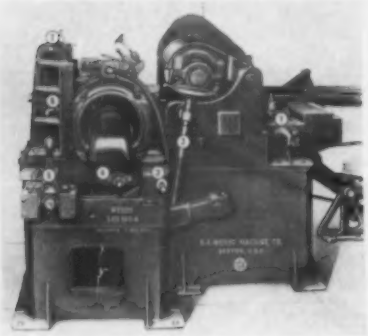

Surfacer Produces Flakes Rather Than Shavings

The S. A. Wood Machine Co. flaker-surfacer produces wood flakes from the excess material on rough lumber being finished. Size of the flakes can be varied to meet demand.

In operation, the flaker-surfacers head or heads are set to cut away the thickness and width as flakes, leaving a flat surface for final finish by the planer knives.

Principal working parts of the unit are pointed out in the above picture: 1—ball bearing roller edge guide with cross adjusting screw. 2—top roll adjusting screw; 3—binder rod for spindle cross adjustment; 4—cross adjusting screw for stock bed; 5—quick pull-out lever and cross adjusting screw for motor and spindle unit; 6—clamp for motor unit; 7—vertical adjusting screw for spindle unit.

•

Four Channels Offered In New 2-Way Radio

Gonset division, Young Spring & Wire Corp., Burbank, Calif., has announced a new G-12 multi-channel "Citizens Communicator" 2-way radio. It operates with the 26.965 to 27.235 megacycle Citizens Band recently assigned by the Federal Communications Commission.

Four crystal-controlled channels for both transmitter and receiver allow the operator to instantly switch to other channels if voice traffic is heavy or interference is present on the channel in use. They also permit various stations in the system—cars, trucks, etc.—to be assigned different channel frequencies.

Transmitter, receiver and 12VDC/117VAC universal power supply are all in one compact unit measuring only 4½ inches high, 7 inches wide and 10 inches deep. Weight is 11 pounds.

•

Automatic Flat Steel Strapping Dispenser

The "Dial-A-Band" from A. J. Gerrard, Melrose Park, Ill., automatically cuts the quantity and length of straps desired. The operator simply sets dials for what he wants and pushes button.

The unit is fully adjustable to accommodate ¾, 1¼ and 2-inch flat steel strapping in ribbon wound coils. Electrical requirements are 110 volt, 60-cycle, single. Air requirement is 60 to 90 psi.

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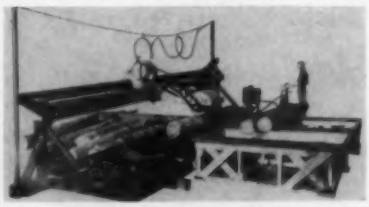
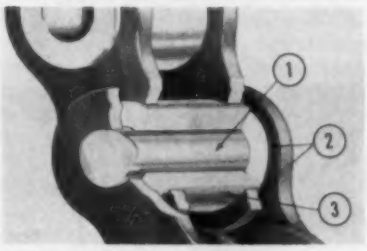


Four Barking Heads Available for DC-6

Soderhamn Machine Manufacturing Co. now offers four separate barking heads for its DC-6 log barker: scraper, cutter, paddle and flail. The new DC-6 design also offers a log-scaling device.

The DC-6 is available in combination with the 48-inch horizontal chipper and CS-20 horizontal oscillating chip screen as an economical installation for smaller mills.



Built-In Lubrication For Chain Bushings

Oil-impregnated, sintered steel bushings developed by the Whitney Chain Co., a subsidiary of Foote Bros. Gear & Machine Corp., Hartford, Conn., provide life-time lubrication for Whitney MSL chain.

Pressure and heat cause built-in lubricants to expand and flow from bushings, providing a constant supply of lubricant to every working part of the chain.

The three critical areas shown in the cutaway picture are assured of the complete built-in lubrication: 1—live bearing area between pin and bushing; 2—inside plate to act as lubricated thrust bearings and to provide oil cushion between plates; and 3—exterior surface for constant lubrication between sprocket teeth and chain.

•

Portable Strap Station Can Move to the Job

The Model E46AO is a heavy-duty steel strapping truck and coil holder with a double-binned style seal box with increased capacity for seals, corner protectors and anchors, Acme Steel Co., Chicago, Ill., reports. It moves on 10-inch rubber wheels. A feature of the coil holder is the guide rods which can be easily repositioned to accommodate various combinations of ¾, 1¼ or 2-inch steel strapping.

Deceleration Valve For Hydraulic Equipment

A new 5-25 gpm deceleration valve for hydraulically actuated machinery permits external adjustment of back pressure to provide desired deceleration rate, manufacturer Vickers, Inc., Detroit, Mich., reports.

To provide proper deceleration characteristics through the complete flow range, the internal port area is altered by the external adjustment. Spool stroke length remains constant regardless of volume setting.

Although rated at 5 to 25 gpm nominal flow, the valve can be used for applications up to 60 gpm without malfunction.

•

5000-Pound Capacity Unit Announced by Hough

The Model H-50 is a 4-wheel-drive, rubber-tired tractor shovel designed to replace the Model HU Payloader.

Features include more power available for both hydraulics and traction, more efficient torque converter, complete power-shift transmission, power transfer differentials, power steering, pry-out bucket action, safety boom arms, power-boosted brakes.

Frank G. Hough Co. says new and more powerful gasoline and diesel engines provide from 90 to 92 hp.

The torque converter in the H-50 is closely matched to engine and transmission characteristics. It is a single-stage, 2-phase converter with torque multiplication factor of 2.57 to 1 at stall. The power-shift transmission provides three speeds in each direction.

Straight Line Edger Capacity Increased

The straight line edger manufactured by Wadkin Ltd., Leicester, England, is now available with a large capacity table that increases capacity to 50 inches wide and 1¾ inches deep from saw to columns. The unit normally is available with ripping capacities up to 24 inches wide by 4 inches deep, or 30 inches wide by 1¾ inches deep.

The machine is fitted with a 25-hp motor in place of the standard 15-hp unit, if desired. The machine is distributed by M. N. Thackaberry, Inc., 1300 South Soto Street, Los Angeles, Calif.

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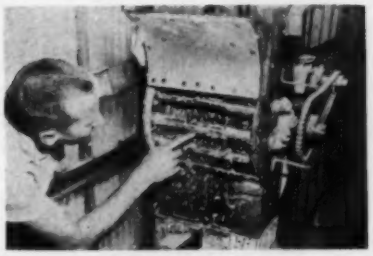


Ferrous Material Removed From Stream of Chips

The Eriez non-electric magnetic Rota-Grate can be installed in the chip flow of a board plant and will catch all ferrous materials. The product of Eriez Manufacturing Co., Erie, Pa., is composed of multiple Alnico V-powered magnetic tubes arranged as a cylindrical grate. It revolves slowly in the stream of materials to catch ferrous materials. Its rotating operation prevents any clogging or bridging and assures a smooth, even flow of cleaned material.

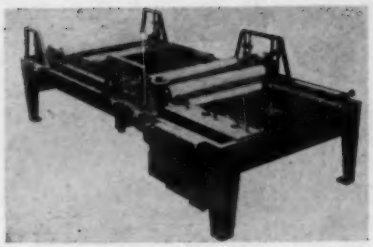
•

Industrial Fan Handles Air or Materials

The Series 400 fan developed by Westinghouse Electric Corp., can be applied for handling grandular, abrasive and fibrous materials, dust collection, fume and high temperature exhaust and similar industrial processes.

The open-type material wheel is constructed of flat radial blades for easy maintenance. A backplate material wheel is also available for handling stringy or slugging materials. The Series 400 fan will also handle clean air, fumes and very light industrial dust on an air wheel that uses backwardly inclined blading for high efficiency.

All wheels are built on heavy welded steel to meet the most rugged requirements. There are no rivet heads for materials to catch on.



Door Sizing Machine Speeds Operation

The new KVAL Model 550 SB door sizing machine can be teamed with the KVAL trim saw to automatically size doors for width and length at the rate of 250 per hour, Kvalheim Machinery Co., Petaluma, Calif., reports. The sizer generally is used for sizing doors after they come from the press.

Cutter heads remove the bulk of the excess width and bring the doors down to size. While still going through the machine, the side edges are sanded smooth and the sharp corners on the length of the doors are removed with newly designed easing units.

The easing unit consists of a floating system of 45° router driven cutters. V guides are behind and ahead of the cutters so that the doors funnel into the mechanisms. Depth of cut is independent of the rate of feed or the thickness of the material.

•

New Actuators Added For Enclosed Switches

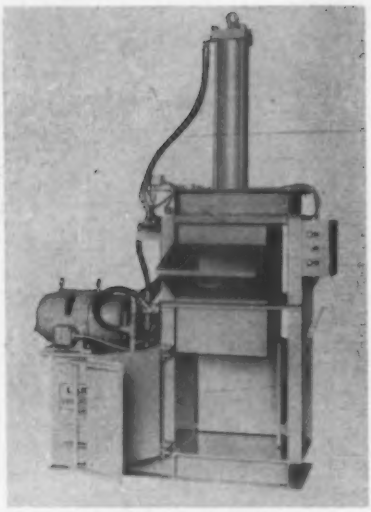
Micro Switch division of Minneapolis-Honeywell Regulator Co., Freeport, Ill., has introduced new one-way roller arm and rod actuator versions of its E6 and V6 family of enclosed switches.

One-way roller arm actuators that provide electrical actuation in one direction only are available for either side and bottom mounting. They are designed for use with machine tools employing a slide to actuate the switch and override it, but not actuate it on the return stroke. A sealed plunger protects the actuating mechanism and switching unit from dirt and splashing liquids.

•

Vickers Adds New Package

Vickers, Inc., Detroit, Mich, has announced a new 10 gallon hydraulic power package, the T10. It provides hydraulic power and control for a wide variety of industrial machinery applications requiring low hydraulic horsepower. The compact unit requires only 25x14 inches of floor space. Recommended maximum electric motor size is 3 hp.



One Man Runs Bulk Material Packing Machine

The Carton Packer developed by Lake Engineering Co., Hammond, Ind., compacts such materials as sawdust, shavings, chips into corrugated cartons. Operation is simple.

A carton is placed in the bottom of the press and heavy steel container doors are closed to jacket and protect the carton during presses. The operator fills feeder-hopper of press with material, closes and locks feeder-hopper door. He pushes a button and the ram moves down to compact the materials in the carton and returns to open position. Carton is removed, lids closed and piece of tape applied to seal package.

Materials are pressed under such high pressure that they hold their position in the carton and do not spring back for several minutes. This allows the operator to completely seal the package before the materials spring back. The carton produced is 20 inches square.

•

Belt Tensioning Device Employs Hydraulics

A conveyor belt tension and alignment adjusting device which utilizes hydraulic pressure instead of screw take-ups has been developed by Western Conveyor of Boise, Ida.

The hydraulic adjuster, the Schrock Hydraligner, provides variable positioning of a conveyor pulley for proper belt tension and alignment. It consists of a hydraulic cylinder attached to a bearing housing. The piston is moved by pressure applied with an ordinary grease gun, and it holds its position with pressure maintained by positive-action piston seals.

The Hydraligner can be adjusted safely while conveyor equipment is in operation, providing for more correct alignment. The unit is mounted on a heavy duty steel angle frame which bolts directly to the conveyor frame.

It is available in shaft sizes from 1-15/16 through 3-7/16 inches. Standard adjustment stroke lengths are 14, 18, 24 and 36 inches.

•

New Features Added To Power Blade Saw

Thomas Industries, Inc., Louisville, Ky., has announced a number of new features for its Super Revel Model 5020, 20-inch power blade saw. They include:

- Stronger "Chromeweld" blade with hard chrome plating.
- Engine operation of between 4800 and 5200 rpm with displacement at 7.06 cubic inches.
- New Carter carburetor which permits operation of the saw in all positions.
- Color-coded system of carburetor settings.
- 3-position safety throttle that shuts off the engine instantly and automatically if the saw is accidentally dropped.
- 2-position recoil instant starter.
- New blade guide groove which is silver plated and coated with molybdenum-disulphite to reduce friction. It needs no oil.

•

Electric Motors Designed For Adverse Conditions

New Sterling standard drip-proof electric motors are designed for use under conditions of continuous and excessive moisture, high humidity and temperature, dust and chemically contaminated atmospheres that previously required totally enclosed, fan-cooled protection.

Flexible insulation is achieved by multiple application and controlled processing of a special silicone sealing compound. This insulation is thin, non-porous, yet permanently resilient and flexible. Superior heat dissipation allows smaller ratings to be used.

The new motors are available in all ratings from ½ to 50 hp, any phase, frequency or voltage.

•

Falk Extends Line

Falk Corp., Milwaukee, Wis., has extended the All-Motor Motoreducer line by adding the Size 8E, thus substantially increasing the range of application for the line, especially in the lower speed ranges. The drive incorporates the service-proved features of the original All-Motor line . . . all-steel housing, large overhung load capacity, positive lubrication and Falk extra depth high pressure angle gear teeth, Falk reports.

Giant Hyster Straddle Handles Unit Loads

A straddle truck more than 20 feet high, 12 feet wide and 24 feet long, can drive over a highway semi-trailer, pick up the detachable body off its chassis and carry the container away. It can move over a detachable trailer container 8 feet wide, 8½ feet high and 24 feet long.

A special hoist frame lifts the containers from the top. Hydraulically-operated hooks drop into receptacles at each corner of the load.

A unit made by the Portland, Ore., office of Hyster Company is being used by the Oahu Railway and Land Co. in Honolulu. It lifts trailer-sized aluminum boxes on and off trailer chassis and narrow-gauge Hawaiian railway flatcars. An underclearance of over 14 feet allows the carrier to raise the containers up to five feet off the ground.

Maximum lifting capacity is 40,000 pounds. The truck can move at speeds up to 25 mph.

•

Unit Conserves Power On Electric-Powered Trucks

Automatic Transportation Co. has developed an electrical industrial truck control called the C.M.C. (Current Miser Control) which saves up to 60% of battery power during maneuvering operations.

The C.M.C. system employs full voltage across the motor and varies the current depending on the speed desired. The system uses a compound motor which is composed of three basic elements: armature, two sets of series fields and one set of shunt fields.

While driving in low speeds, all series and shunt fields are employed. As the truck picks up speed, part of the series field is cut out and, at top speed all of the shunt field is also cut out.

The speed range, from low to top speed, is infinitely variable. Therefore, not only is the optimum in electrical efficiency obtained, but the characteristics of C.M.C. provide the operator with complete selectivity of any desired speed.

PERSONALITIES

ROBERT C. HARNDEN has been named to the newly created post of executive vice-president of Chapman Chemical Co. He was vice-president of the agricultural chemicals division. The wood preservatives division will continue under the direction of C. F. GRAFTON and the industrial chemicals division under F. W. LYDON, both of whom are vice-presidents of the company.

W. D. TREWARTHA, vice-president in charge of the San Francisco, Calif., office of General Appraisal Co., was recently honored at an award banquet that recognizes 25 years of service to the company. General Appraisal has been active in the field of sawmill property appraisals for a number of years.

W. D. TREWARTHA

FRED A. SALMON

FRED A. SALMON has been named chief engineer with Corley Manufacturing Co., Chattanooga, Tenn. Mr. Salmon has operated his own consulting service working with lumber producers.

Changes in Norton Co.'s field sales organization have been announced. RICHARD H. MERCHANT, formerly abrasive engineer in the Flint, Mich., area, is assigned to the Baltimore area. FRANK W. KORHN, formerly field engineer in Detroit, succeeds Merchant at Flint. GEORGE C. CROOKS, formerly field engineer at Philadelphia, becomes abrasive engineer for the New Orleans area. He succeeds HOMER L. GIBBS who will now cover the Florida territory. ROBERT H. JOHNSON, formerly of Florida, is reassigned to Philadelphia. ROLAND L. JANDRON, formerly abrasive engineer in the Los Angeles area, is in the same post at Seattle, Wash.

STANDISH H. HARRISON is new Pacific Coast region marketing manager for the Westinghouse Electric Corp.'s apparatus division. Harrison was regional industrial sales manager.

Carrier Conveyor Corp. Merged with Chain Belt

Carrier Conveyor Corp., manufacturer of vibrating conveyors, and its subsidiary General Industries, both Louisville, Ky., have been merged into Chain Belt Co., Milwaukee, Wis. The merger will supplement Chain Belt's line of materials handling equipment which includes sprocket chains and power transmission machinery, bulk material handling equipment, self-aligning roller bearings and industrial waste treatment equipment.

•

White Motor Men Meet

The semi-annual meeting of the factory-distributor council from White Motor Co.'s Pacific Coast region attracted delegates from the 11 western continental states, Hawaii and Alaska to Los Angeles in October. The group discussed matters to be placed before the national Factory-Distributors Council which is scheduled for an early spring meeting in Cleveland, O. Delegates to the session were able to look at the new White 5000 which was on display at the nearby ATA convention.

•

Firm Takes New Name

Top Line Equipment Co. is the new name of Robert Dodd Co., material handling distributors in Portland and Medford, Ore. Only the name is changed. The firm will continue to handle equipment of the Industrial Truck division, Clark Equipment Co., Monarch and Notat Industrial Tires, Prime-Mover platform trucks, Hughes Keenan Roustabout cranes, Fococranes and Rack Hydraulic pallet trucks.

•

Acme Chain Sales Meeting

The annual sales conference of Acme Chain Corp. at Holyoke, Mass., attracted 21 sales representatives. Acme Chain personnel attending included Herman E. Pihl, vice-president; John F. McCann, chief engineer; Robert S. Wilson, sales correspondent; Chester Pinkos, expeditor and safety director; John D. Hayden, sales manager; and Donald A. Pihl, assistant sales manager.

•

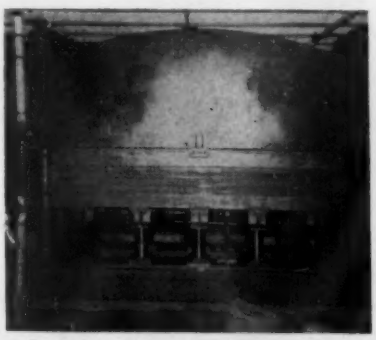
• P. T. FRIDELL has been named assistant sales manager of Corley Manufacturing Co. and will work the 11 western continental states for Corley Manufacturing and Linck gang saws. His headquarters will continue in Chattanooga, Tenn.

PEERLESS bulk chip transport trailer, shown here being unloaded at the new chip dump at Kraft Paper Co., Albany, Ore., replaces rail shipment. Trailer is constructed of high tensil steel with integral body side posts. During transport, the top is covered with a lightweight "chain mail" rather than canvas or nylon tarp which might rip. The 35-foot trailer will haul 13½ units.

★ ★ ★

ARMSTRONG band saw sharpener, one of three installed by Brooks-Scanlon Lumber Co., Bend, Ore., when it modernized its sawmill, is shown being operated by Gene Murphy, head saw filer.

★ ★ ★



BERTHELSEN 4-opening hot press recently installed at Bacon Veneer Co., Chicago, is a 200 psi machine with five inches of daylight in each opening. The unit is 125 inches wide, 50 inches deep.

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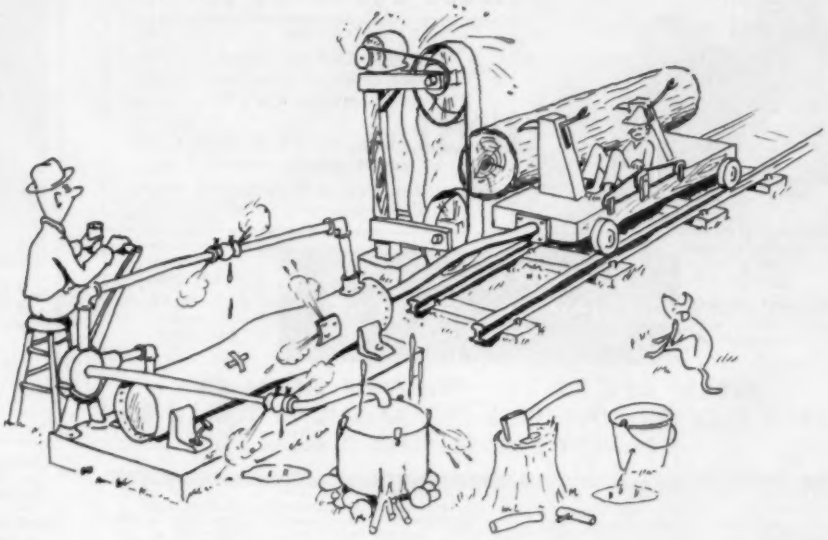

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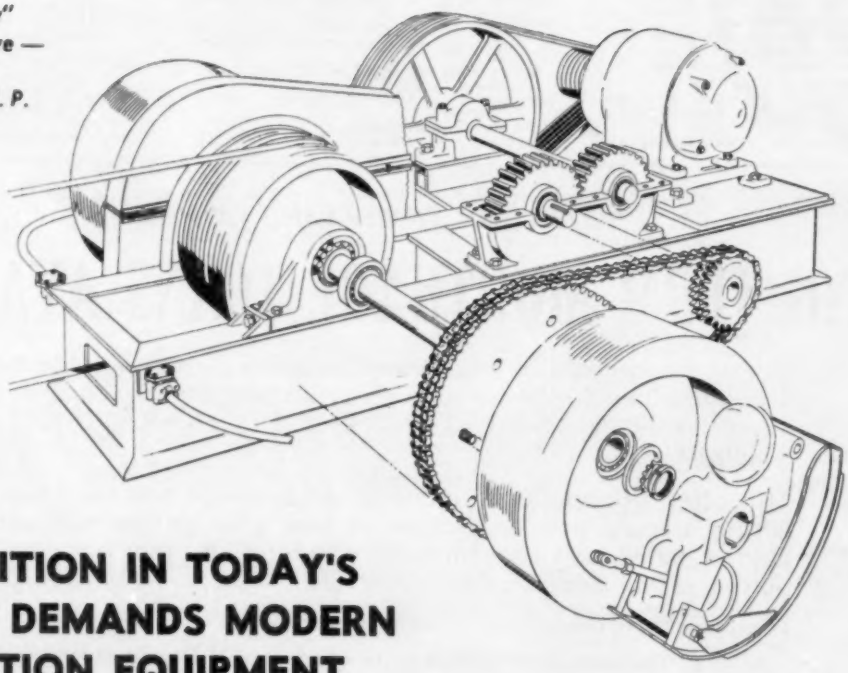

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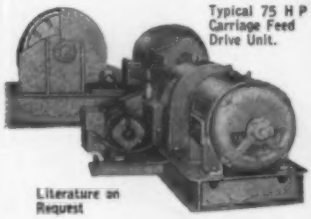

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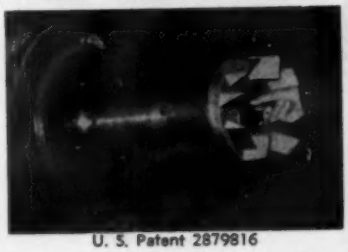

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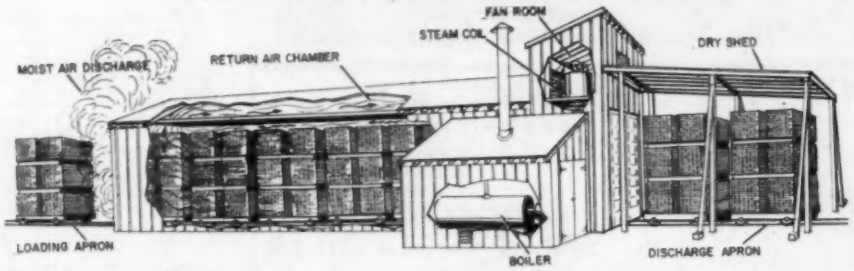

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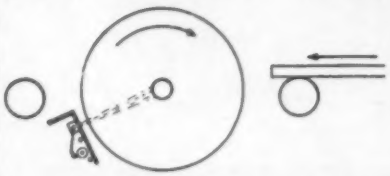
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Vollmer-Werke Maschinenfabrik, GmbH, Dusseldorf, Germany; Portland, Ore.; Hawthorne, Calif.; Hamilton, Ontario.
S. A. Woods Machine Co., Boston; Portland; Memphis, Tenn.; San Mateo, Calif.

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Alan Wood Steel Co., Conshohocken, Pa.; Seattle; Los Angeles; San Francisco; Vanc.,B.C.

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Monarch Forge & Machine Co., Portland, Ore.
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Soderhamn Machine Mfg. Co., Portland, Ore.
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Sheridan Gear & Mfg. Co., Portland, Ore.

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Link-Belt Co., Chicago, Seattle, Portland, San Francisco, Los Angeles, Spokane, Vancouver, B. C.
J. W. Minder Chain & Gear Co., Portland; Los Angeles
Sheridan Gear & Mfg. Co., Portland, Ore.
Western Gear Corp., Lynwood, Calif.; San Francisco; Portland; Seattle; Spokane; Denver; Dallas and Houston, Texas
Western Machinery Corp., Portland

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Irvington Machine Works, Portland
Stetson-Ross Machine Co., Inc., Seattle

GRINDING WHEELS
Norton Co., Worcester, Mass.

GUIDE SETWORKS
M. A. Ward Construction Co., Inc., Eugene, Ore.

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Greenlee Bros. & Co., Rockford, Ill., Seattle; San Francisco; High Point, N. C.
Grenco, Inc., Seattle, Wash.; Portland
Washington Iron Works, Seattle, Wash.
California Plating Works, Inc., Portland, Ore.

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Diamond Iron Works, Chicago, Ill.
D. J. Murray Mfg. Co., Wausau, Wis.
Portland Machinery Co., Portland
E. V. Prentice Co., Portland, Ore.
Sumner Iron Wks., Everett, Wash.

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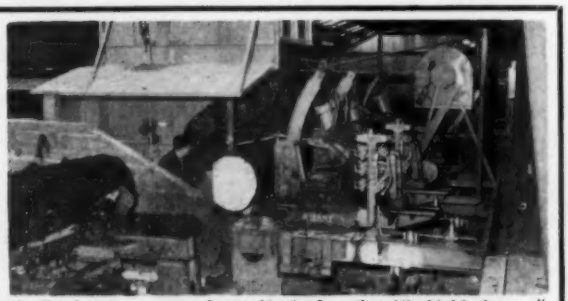
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Ohio Knife Co., Cincinnati, Ohio; Portland
Pacific Saw & Knife Co., Portland
Simonds Saw & Steel Co., Fitchburg, Mass.; Portland
Ray Smythe, Portland
Spear & Jackson Ltd., Vancouver, B. C.; Eugene, Ore.
Wapakoneta Machine Co., Wapakoneta, Ohio

KNOT SEALERS
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Clark Equipment Co., Ind. Truck Div., Battle Creek, Mich.; Seattle; Portland; San Francisco
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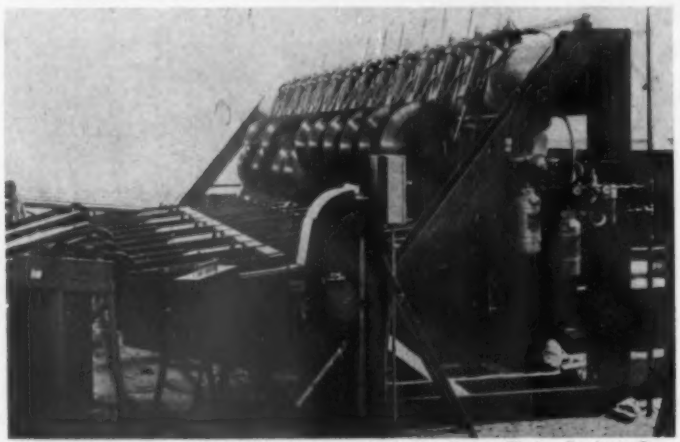

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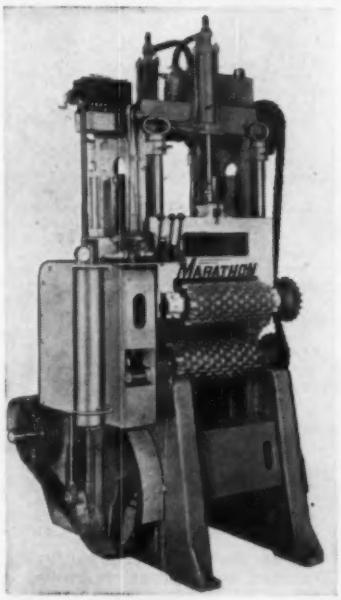

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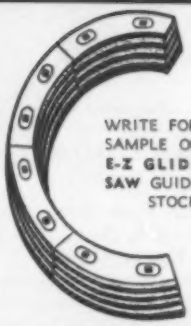

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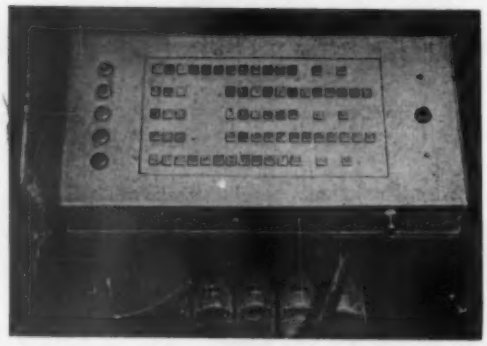

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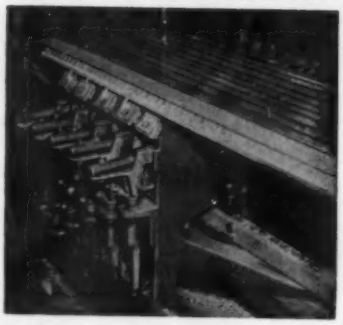

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Prineville Machinery & Supply Co., Prineville, Ore.
Salem Equipment & Supply Co., Salem, Ore.
Schurman Machine Works, Inc., Woodland, Wash.
Soderhamn Machine Mfg. Co., Portland, Ore.
Star Machinery Co., Seattle, Wash.
Sumner Iron Works, Everett, Wash.
Tyee Machinery Co., Seattle, Wash.
United Saw Service, Corvallis, Ore.
M. A. Ward Construction Co., Eugene, Ore.
Western Machinery Corp., Portland
Western Steel & Supply Co., Dallas, Ore.
The Wheland Company, Chattanooga, Tenn.
Yates-American Machine Co., Beloit, Wis.; High Point, N. C.; Memphis, Tenn.; Portland
Zidell Machinery & Supply Co., Portland

SCRAGG MILLS
Keystone Machine Works, Roseburg, Ore.

SETWORKS—Automatic
C & D Machine Shop, Riddle, Ore.
Klamath Machine & Locomotive Works, Klamath Falls, Ore.
Mater Machine Works, Corvallis, Ore.
Mill Equipment, Inc., Seattle
Monarch Forge & Machine Works, Portland, Ore.
Sel-Set Machinery Corp., Salem, Ore.
M. A. Ward Construction Co., Inc., Eugene, Ore.

SHINGLE MILL MACHINERY
Sumner Iron Works, Everett, Wash.

SHREDDERS
Jeffrey Manufacturing Co., Columbus

SORTERS, lumber, automatic
The Wheland Company, Chattanooga, Tenn

SPLITTERS, log
L-M Equipment Company, Portland, Ore.

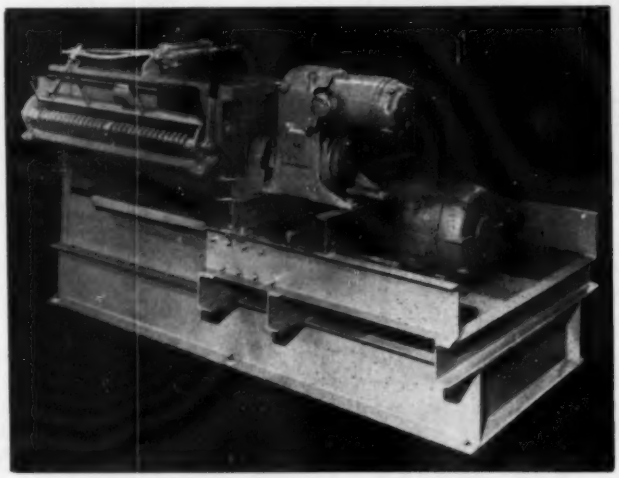
SPEED REDUCERS
Dodge Manufacturing Corp., Mishawaka, Ind.
The Falk Corporation, Milwaukee, Wis.
Western Gear Corp., Lynwood, Calif.; San Francisco; Houston and Dallas, Texas; Seattle; Portland; Spokane

SPROCKETS and GEARS
Chain Belt Co., Seattle, Portland, San Francisco
Falk Corporation, Milwaukee; Portland
Link-Belt Co., Chicago, Seattle, Portland, San Francisco, Los Angeles, Spokane, Vancouver, B. C.
Sheridan Gear & Mfg. Co., Portland, Ore.

STACKERS, UNSTACKERS, TRANSFERS
Lawson Stacker Co., Memphis, Tenn.
Lovsted & Co., Inc., C. M.
Moore Dry Kiln, Portland; Jacksonville, Fla.
Stetson-Ross Machine Co., Inc., Seattle

STEEL, products, buildings, structural, industrial
Alan Wood Steel Co., Conshohocken, Pa.
Armco Drainage & Metal Products, Inc., Middletown, Ohio; Berkeley, Calif.; Seattle; Portland; Spokane; Atlanta; Denver; Houston; Guelph, Ontario

SCHURMAN SPECIAL EDGERS



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SOLVING your edger problems is our business. We've been building edgers since 1934 . . . to meet special requirements by all types of sawmill operations.

Our experience, know-how, and modern manufacturing methods insure you of the edger best suited to your needs.

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Built for Edward Hines Lumber Co., Hines, Oregon, this Schurman edger has four special shifters to shift saws to 2" spacing.

Special edger pictured above is equipped with C & D Air Electro Setworks to provide fast, accurate setting by pushbutton control.

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Gerrard Steel Strapping Division, U. S. Steel Corp., Chicago; Seattle; Portland; So. San Francisco; Birmingham, Ala.
Signode Steel Strapping Co., Chicago; Seattle; Portland; San Francisco; Spokane, Wash.; Vancouver, B. C.
Stanley Works, New Britain; Seattle, Portland

TIRES
Firestone Tire & Rubber Co., Akron, Ohio
General Tire & Rubber Co., Akron, Ohio; Portland
B. F. Goodrich Co., Akron, Ohio; Portland; Seattle
Goodyear Tire & Rubber Co., Akron, Ohio; Portland; Seattle
U. S. Rubber Company, New York City; Portland; Seattle

TORQUE CONVERTERS
Schneider Division of Westinghouse, Muncie, Ind.
Western Gear Works, Seattle

TRACTORS, Crawler
J. I. Case Mfg. Co., Racine, Wis.
Allis-Chalmers Co., Milwaukee, Wis.
Caterpillar Tractor Co., Portland; Seattle; San Francisco; Peoria, Ill.
Euclid Div., General Motors Corp., Cleveland, Ohio
International Harvester Co., Chicago, Ill.
John Deere Co., Moline, Ill.
Oliver Corp., Chicago, Ill.

TRACTORS, Rubber Tired
Allis-Chalmers Co., Milwaukee, Wis.
J. I. Case Co., Racine, Wis.
Caterpillar Tractor Co., Portland; Seattle; San Francisco; Peoria, Ill.
Frank G. Hough Co., Libertyville, Ill.
John Deere Co., Moline, Ill.
R. G. LeTourneau, Inc., Longview, Texas
LeTourneau-Westinghouse Co., Peoria, Ill.

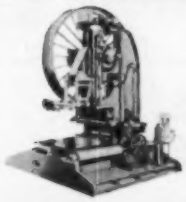
TRAILERS, log and lumber
Beall Pipe & Tank Co., Portland
Peerless Trailer & Truck Service, Portland, Ore.
Reliance Trailer & Truck Co., San Francisco

TRIMMERS
Albany Machine & Supply, Albany, Ore.
Irvington Machine Works, Portland, Ore.
Portland Iron Works, Portland
Stetson-Ross Machine Co., Inc., Seattle
Klamath Iron Works, Klamath Falls, Ore.
Klamath Machine & Locomotive Works, Klamath Falls, Ore.
Sumner Iron Works, Everett, Wash.; Vancouver, B. C.

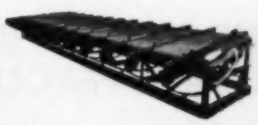
VALVES, FLANGES
Zidell Machinery & Supply Co., Portland, Ore.

WRITE FOR INFORMATION ON ANY OF THESE MONARCH MACHINES

Monarch 5 to 9-ft. Bandmills



TRIMMERS
Overhead or undercut models



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LIVE LOG DECK
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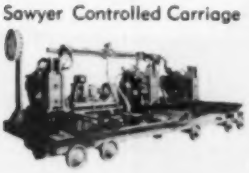

Monarch
Forge & Machine Works, Inc.

To: MONARCH FORGE & MACHINE WORKS, Inc.
2130 N. W. York St., Portland 10, Ore.
Telephone: CApitol 7-0631

Gentlemen: Please send me your descriptive literature on the machines I have listed.

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ADDRESS_____

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WE CAN MANUFACTURE ANYTHING OF RUBBER
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KNIFE & SIDE HEAD GRINDERS
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Wood Pipe
2 inches to 16 feet diameter.
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100 gallons to 500,000 gallons capacity.
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WANTED—One Complete Cut-Up Plant for 50,000 feet per day, including high speed matcher. Give prices and delivery immediately.

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R. R. SPURS
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SPECIAL BUILT UP RIGHT HAND SAWMILL CARRIAGE:
3 Block, 8"x10"x20 Ft. rock elm frame with 8" channel top, 48" Platform, 2" plank rear end scraper, 3 Prescott Knees and 40" head blocks, #77 air dogs and telescoping air transmitter, Allis-Chalmers #3 Trout electric power setworks, belt driven from 5 H.P. A.C. motor, 3 phase, 60 cycles, 440 volts. Prescott roller bearing track wheels, Murray truck-type drag offset. Prescott 12"x42 Ft. Shotgun steam feed, 3⅜" Piston rod, 4" Valves.

D. J. MURRAY #102 EDGER:
50" Right Hand Edger, 5 Saws—2 stationary, Arbor 4¼". 12"x14" arbor pulley front table with four 4"x50" divided pipe rolls—1 live. Five lever hand set works and guides.

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Right hand, 8 ft. Band Mill. 11" face wheels for 12" saw. 44"x21" pulley. Complete.

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Lawrence Warehouse Co., San Francisco

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Monsanto Chemical Co., St. Louis, Mo.; Seattle
Reichhold Chemical Co., White Plains, New York; Seattle; San Francisco; Port Moody,
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Greenlee Bros. & Co., Rockford, Ill.
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Tyee Machinery Co., Seattle, Wash.
S. A. Woods Machine Co., Boston, Mass.; Portland, Ore.

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LIFT TRUCKS and STRADDLE TRUCKS
From 2,000 to 40,000-lb. capacities now available for immediate delivery.

As your Hyster Sales dealer, we are equipped to offer Complete Job Analysis of your lift truck needs; Complete Parts and Field Service; Modern Shop Facilities for major repairs; and our factory Trained Mechanics are field experienced to keep your equipment in top condition. Call Today.

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OUR SINCERE WISH TO THE LUMBER INDUSTRY . . . THAT 1960 WILL BE A PROSPEROUS YEAR

Also, we wish to thank our many lumber operating friends for their loyal patronage in 1959.

SALEM EQUIPMENT MEETS ALL SAWMILL NEEDS.

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The Lumberman's Classified Advertising Section

FOR SALE

Motorized lumber grapple for use on an overhead crane. 360-deg. rotation, two motors. Will handle 7½ ton stack, 6 ft. wide, 5 ft. high. Four-point suspension.

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LUdlo 2-7121

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Check These New Arrivals!

Yates Resaw rebuilt 54" ball bearing.

Diamond 35 Hogs.

Bandsaws 36" – 30" – 26" – 16" various brands, many excellent buys.

Mershon str. line Rip BB 20 Hp, late type.

More XL mould matchers 2x4, 2x6, all good.

Stetson Ross Model 7 6x15–8 knife Planer and table.

Newman, used M48 B.B. like new, extra sharp value.

Worthington Stationary Air Compressor, rebuilt and guaranteed. Late M 75 with 75 HP motor and starter, 350 CFM.

Overhauled Koering 304 base machine, crawler tracks, 24" shoes, ¾ yd. good log load.

Used Insley, Model L, rubber mounted 12½ ton crane cat. dsl. engine, good condition.

Reconditioned Mattison all-electric B.B. 4x8 moulder. 15 HP T & B Hds, 7½ HP side heads. Clean, powerful. Switches and some heads included.

All items subject to prior sale or option

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IRON PEAK LUMBER CORP.
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FOR SALE

Moore Cross-Circulating Progressive Dry Kiln with controls and boiler.

Write: 1962 1st Avenue South, Seattle, Washington, or phone: Main 4-4444

WANTED

20' Overhead Trimmer for sawmill. Steel A frame and table. Must be modern machine in good used condition.

Williams Lumber Co., Drawer 1298, Rocky Mount, N. C.

405 HP RILEY STEAM PLANT

Good as new. 270 lbs. W.P. Available now.
ME 2-0124, CH 2-2902, SU 4-3264
Seattle, Washington

FOR SALE

Two complete Filer & Stowell Automatic Setworks at one half our original cost. Installed new—improved type—Inspection invited. Write for details.

Diamond National Corporation
Box D
Red Bluff, California

USED MACHINERY VALUES

15" x 8" Woods 412-M 8-knife elec. planer with double profile, heads, feed table. Age 3 years — excellent buy.
15" Woods 407-M 12-knife with feed table, Irvington trimmer, 54" resaw, with chains, knife grinder, etc.
24" Woods 404-CM, 10-knife, electric planer
9" Stetson-Ross planer, belted, good, $1500.00
16" x 30" Berlin #15 timber sizer
16" x 30" No. 4 Stetson-Ross timber sizer
24' Irvington 10-saw automatic trimmer
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10-opening Siempelkamp hot plate press
4' x 8' Black Bros. elec. cold press, M.D.
6" #272 Mattison electric moulder
8" Yates C-88 moulder, all electric
12" x 60" I. W. Johnson edger, like new
14" x 40", also 12" x 32" Wickes cant gang saws
4 Moore cross circulating dry kilns
6" Diamond band mill

TYEE MACHINERY COMPANY

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NEW ALLIS CHALMERS 14"x68' Shotgun Steam Feed with revolving barrel, operating valves, cambered rod, sawyers controls, two carriage swing brackets, and one extra front head. Can be shortened to fit any installation.

NEVER BEEN USED—reasonable priced for quick sale.

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SAWMILL MACHINERY

24' wheel trimmer B.B. on steel beam
70' steel log haul conveyor
2 log hauls—330' 1⅛x6 chain, each
2 log kickers, 10"x22" air cylinder
Simonson Turner—2—12"x96" cylinders
2 log kickers, 14x36 cylinders
Log Stop—4 15/16" shaft, 14"x20" cyl.
Log Stop—4 7/16" shaft, 14"x20" cyl.
Log Gang 36"x20" stroke, "Record"
Log Gang 26"x20" stroke, "Record"
Edger 10x60 Phoenix, ball bearing
Slasher, 5 saw, 4' spacing
14"x18" steam feed engine geared

MOTORS

HP	Speed—Volts
1—500	3600—2300 CW
1—500	3600—2300 Ind. WH
1—450	3600—2300 WH
1—400	300—2300 Syn. GE
1—200	1200— 440 Ind. GE
1—200	1200—2300 Syn. GE
1—200	900—2300 Syn. GE
1—200	514—2300 Ind. GE
1—200	500—2300 Sr. GE
1—150	1800— 440 Ind. FM
1—125	1200— 440 Ind. WH
4—100	900— 440 Ind. WH
5— 75	900—2300 Ind. WH
1— 75	720— 440 Ind. GE
1— 75	514— 440 Sr. GE
1— 40	1800 440 Ind. GE

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Steel frames, Roller chain driven
6—10x24x2 7/16"—1½" P
5—10x30x2 7/16"—1½" P
6—10x30x2 7/16"—1½" P
7—10x60x2 7/16"—1½" P
15—6x20x1 15/16—1¼" P
10—6x20x2 3/16—¼" P Concave

MISC.

Chipper, 72"—10 knife Carthage with 400 HP, 300 RPM 2300 V. Synch. Motor
Band Rip Saw, Yates R4—54"
Worthington Twin Horiz. 2 stage, 393 cu. ft. Air compressor
IR 315 CFD air compressor, 75 HP motor 440 V w/V belt drive 368CF
IR 12x10 ER1 Air Compressor
#94 Berlin 6 knife planer 6x9
#404B Woods 6 knife planer 6x15
#207 Madison rip saw
Master S & W dragsaw, 20 HP motor
Lincoln 300 Amp gas driven welder
Ray Burner 400 HP turbine driven
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#150L Covel grinder w/72" clamp
#18 Armstrong Grinder
5 electric panels, magnetic starters and disconnect switches 440 V
Lathe, Lodge & Shipley 20" Swing 12' centers
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SAW MILL MACHINERY

Phone LEnox 2-1234 P.O. Box 33 Aberdeen, Wash.

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CRANES:

"STAR" 4-ton gantry 82' boom, full revolving, 440-volt AC motors

EDERER 10-ton bridge, 36' span—Cab type (Can be converted to floor control—440-volt AC motors

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Direct motor driven each drum. Complete with switches, starters, blower system.
BLACK BROS. PRESS 50"x100", 60" opening, all electric, new condition.

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Phone—REdfield 8-5444

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Chehalis, Washington

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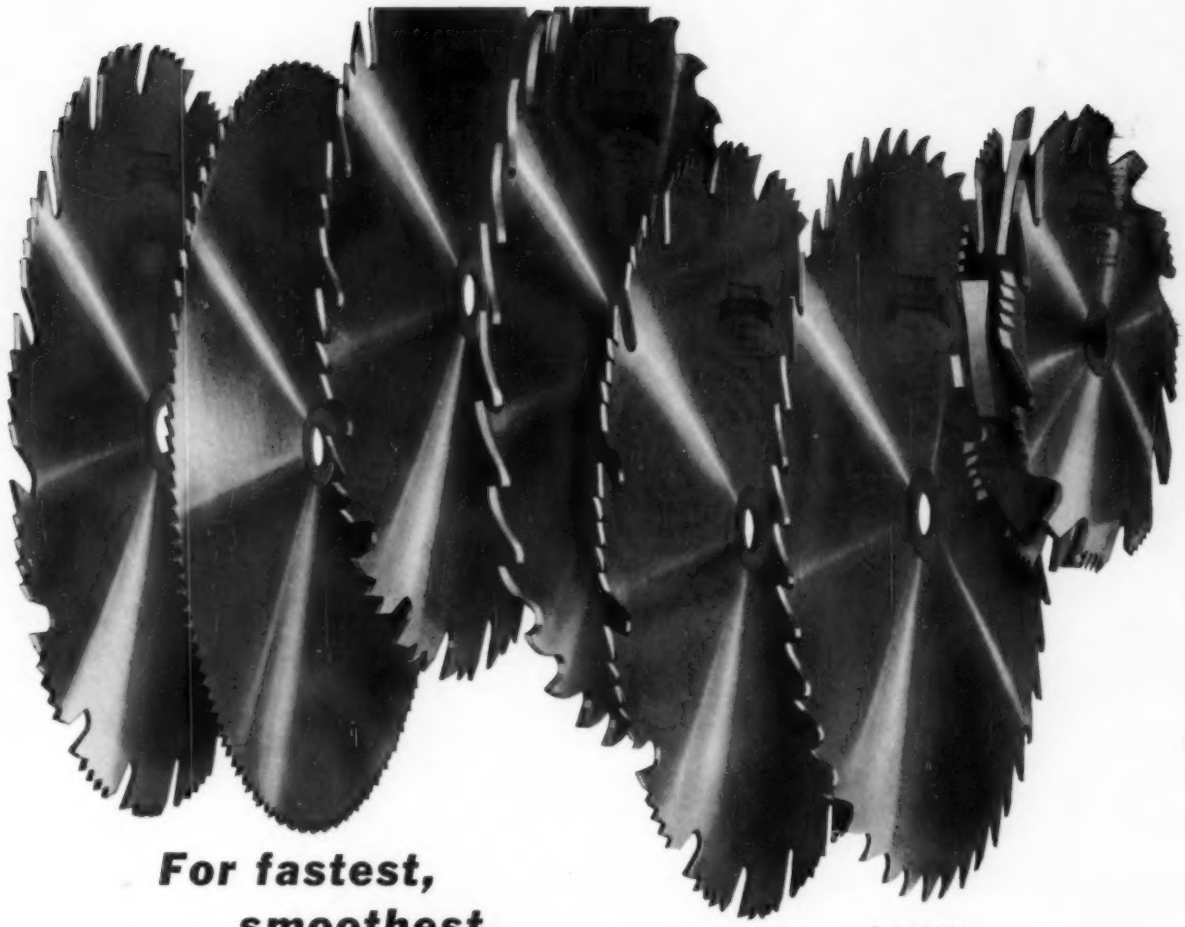
Includes approximately 6 acres of land, large shed and equipment in good operating condition. Priced to sell.

Write

ELI GORODEZKY
733 First National Bank Bldg.
Phoenix, Arizona



Left to Right:
Planer, Cut-Off, No. 52 Combination,
Rip, No. 54 Combination,
No. 60 Combination, Dado Head

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SIMONDS "Red Center" SAWS

The facts behind the better results you're sure to get with Simonds "Red Center" Saws are simply these: BETTER STEEL, REAL MANUFACTURING KNOW-HOW and EFFECTIVE QUALITY CONTROL.

Simonds special alloy steel is better because it's cross-rolled for more uniform grain structure which provides extra toughness and edge-holding ability. Simonds know-how is based on 83 years of saw making, using the most up-to-date heat treating, grinding, tensioning and sharpening equipment and methods. Effective quality control covers every step in manufacture — insures that every saw is perfectly round and flat, will run true and cut straight, smooth and fast under all conditions.

It will pay you to put "Red Center" Saws on all your machines. Saw types and sizes for every need — many are available from your local distributor's stock.

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Canadian Factory in Montreal, Que., Simonds Divisions: Simonds Steel Mill, Lockport, N. Y., Heller Tool Co., Newcomerstown, Ohio
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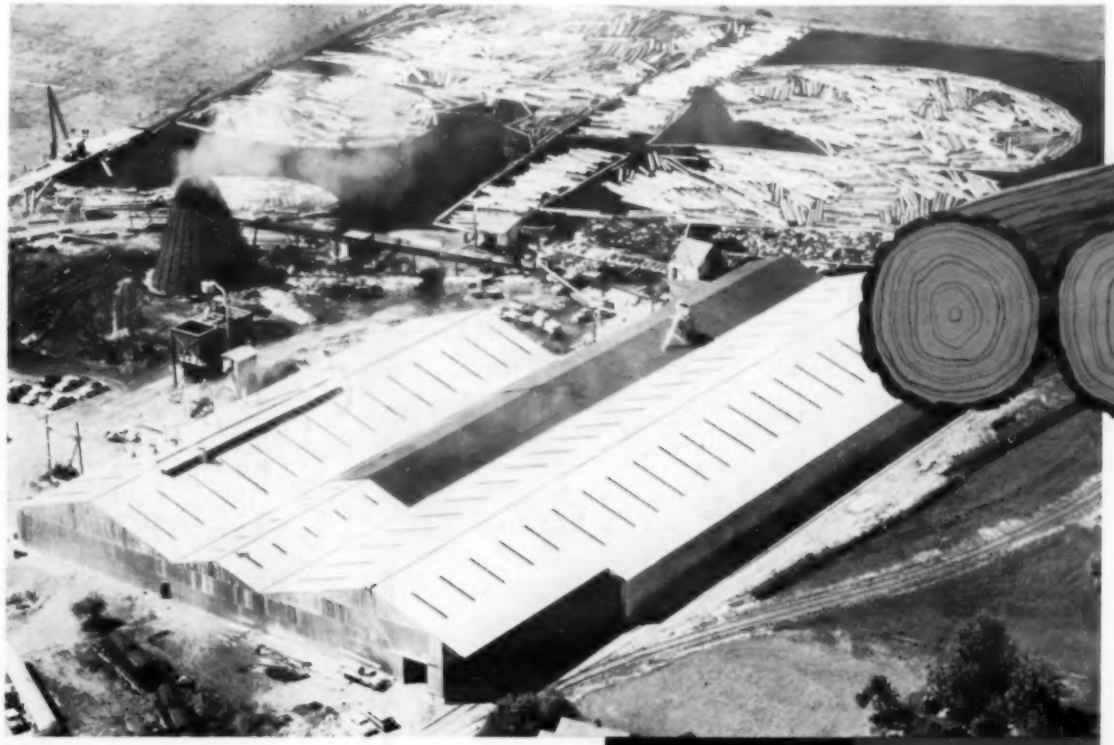
MODERN, ROOMY, FIRE-SAFE SOULE' STRUCTURES

for new or expanding plywood plants



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Soulé steel structures are the modern way to achieve profitable plywood plants. You specify exact width, length, ridge height—and Soulé customizes your plant with mass production economies. You get vast clear area for efficient layout of manufacturing operations; and, because they are all-steel, Soulé structures help you save dollars on fire insurance.

Photo shows Inply Corporation's modern new Independence, Oregon plywood plant. Original operation was housed under the shaded roof area. Soulé structures gave Inply more useable floor area, dry, rugged, safe corrugated steel roof and side walls, and minimum maintenance.

Soulé
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